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ABSTRACT

Current career education curricula seems to neglect basic elements of career decision making for women. This criticism was addressed by first developing sets of values in the areas of marriage and parenthood and then examining the relationships of the values to educational, occupational, fertility, and labor force participation plans. Six hundred urban 11th grade students were individually interviewed to ascertain their levels of educational and occupational aspirations. Students represented equally both sexes, three ethnic groups, and two socio-economic levels. Responses to tasks requiring ranking and rating of alternative work patterns and occupational, marriage, and parenthood values were analyzed. Values, particularly the occupational and parenthood values, demonstrated a relationship with level of educational aspirations. Weaker relationships were found for the values and occupational aspirations. Factor analyses of the values demonstrated both independence and overlap among the three sets. The major group differences found for the values were sex, then SES, and few ethnic group differences. The results indicate that theorists in career development and career decision making must expand their perspectives to include a larger set of adult roles (work, marriage and homemaking, and parenthood) in order to understand women's career choices. (Author/BM)

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FINAL REPORT

Sex Role Values in the Career Decision-Making Process

National Institute of Education Project No. NIE-G-76-0074

Principal Investigator: Carol Kehr Tittle

University of North Carolina at Greensboro
Greensboro, North Carolina

August 1979

U S DEPARTMENT OF HEALTH.
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ABSTRACT

Among the educational tasks of the school is the provision of knowledge about occupations and career planning. Current career education curricula focus on an independent decision maker whose occupational choice is a consequence of occupational values and knowledge, but neglect basic elements of career decision making for women--traditionally defined sex roles. The present research addresses this criticism in two ways. First, sets of values in the areas of marriage and parenthood have been developed. Second, the relationships of the values to educational, occupational, fertility and labor force participation plans are examined.

Six hundred urban 11th-grade students participated in individually conducted interviews. Students represented equally females and males, three ethnic groups (white, black, and Hispanic), and two SES levels, middle and low. Students' levels of educational and occupational aspirations were ascertained. Responses to tasks requiring ranking and rating of alternative work patterns and occupational, marriage, and parenthood values were analyzed.

Values, particularly the occupational and parenthood values, demonstrated a relationship with level of educational aspirations. Weaker relationships were found for the values and occupational aspirations. Factor analyses of the values demonstrated both independence and overlap among the three sets. The major group differences found for the values were sex, then SES, and few ethnic group differences, suggesting that the values could be used with a range of high school students. Theorists in career development and career decision making must expand their perspectives to include a larger set of adult roles--work, marriage and homemaking, and parenthood--in order to understand women's career choices.

ACKNOWLEDGMENTS

Appreciation is expressed to colleagues and staff at two institutions--the Center for Advanced Study at the City University of New York, where the study originated and the data collection was completed, and the University of North Carolina at Greensboro, where the data analysis and report were completed. Special acknowledgment is due Deanna Chitayat and Elenor Rubin Denker, who worked together with me to prepare the grant and develop the values in the first year of the project. Elenor Rubin Denker and Joyce Block were invaluable assistants during the second year of the project, in data collection, coding for computer analysis and developing a computer code book. Judith Cole assisted in the preparation of the final report and provided much appreciated summaries and critiques of the report. Charlotte Fiske at CUNY and Kathleen Martinek at UNC-G patiently and competently coped with administrative and typing responsibilities for the project reports.

Martin Katz was consultant to the project and was both knowledgeable and generous in suggesting adaptations of the occupational values, new items for the interview, conduct of the data analyses, and review of the final report. Lolagene Coombs kindly permitted the use of her then-unpublished scales of preferences for work and children, and reviewed their presentation format.

Greensboro, North Carolina
August 1979

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NOTE ON DATA ANALYSES

Data analyses on this project were carried out using SPSS and SAS programs:

> Statistical Package for the Social Sciences (2nd ed.). Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K., & Bent, D. H. New York, McGraw-Hill, 1975.
>
> SAS User's Guide, 1979 Edition. Raleigh, N. C., SAS Institute, Inc., 1979.

The descriptive statistics, cross tabulations and discriminant analyses were done using SPSS. The MANOVAs, ANOVAs and factor analyses were done using SAS. Factor analyses are principal components with varimax rotation.

CHAPTER I

INTRODUCTION

Among the educational tasks of the school is the provision of knowledge about occupations and career planning. This knowledge is now being formally transmitted in the new curriculum area of career education. The career education curricula developed for use in elementary and secondary schools are based on approaches to career decision-making that focus on an independent decision-maker whose occupational choice is a logical consequence of her/his occupational values and knowledge. This approach is increasingly criticized for neglecting a basic element for career decision-making for women: the traditionally defined adult sex roles of women. Both within sociology and psychology the development of approaches to occupational choice have used data on males as a point of reference.

The most serious omission in conceptualizing career choice is the consideration of the effects of sex role socialization on the decision-making process. Choices within a woman's world which include decisions about marriage, parenthood, and female-male responsibilities in homemaking are left unexamined in theory and often in research. These latter aspects of a woman's world are part of the adult woman's sex roles as defined in American culture. It has been argued by Psathas (1968) and Falk and Cosby (1978), in their reviews of sociological research on occupational choice and status attainment, that these aspects of sex roles have direct implications for the types of occupations women consider, for their labor market entry and exit patterns, and, as a result, for women's career decisions.

Another argument for a reexamination of approaches to career decision-making and career education is provided by the data on the attainments of women in the world of occupations and work. A recent overview of women in the work force cites data that document the continuing occupational segregation and earning differentials for women in the work force (National Commission of Working Women, 1979). As of 1977, 56 percent of women 16 years of age and over worked all or part of the year. This comprises 42 percent of the U.S. work force, 42.1 million women. Of women in the work force as of March 1978, nearly 80 percent were in clerical, sales, service, factory or plant jobs. Women were divided into the following occupational categories: professional-technical, 16.1%; managerial-administrative, 6.3%; sales, 6.8%; clerical, 34.7%; craft, 1.7%; operative, 11.2%; non-farm laborer, 1.6%; service, including private household, 20.5%; and farm laborer, 1.1%. The well-known concentrations of women within professional jobs were documented again: 60% of the women in professional jobs are non-college teachers or nurses, while men tend to be lawyers, doctors, or college professors.

Within occupational categories the wages of men and women vary considerably. For every dollar earned by a man, a woman in the same job category earns significantly less. During the last 25 years, women's earnings have dropped steadily in relation to men's. In 1955, full-time women workers earned $.64 to men's $1.00. By 1960 this figure had dropped to $.61. Ten years later in 1970, women's earnings were calculated to be 59.4¢ per men's $1.00. In 1977 the figure was 58.9¢ compared to men's $1.00. In 1977 full-time women workers had a median income of $8,814, while men's income averaged $15,070. Women of Spanish origin had the lowest income of any racial/ethnic group; their income was less than half that of white males. This is the familiar litany of facts and figures on the relationship between men's and women's participation and earnings in the labor force. Occupational segregation as well as earnings differentials have not changed and in some instances have become worse.

This research, funded under the NIE grant program on education and work, was concerned with examining background and process variables that may relate to career decisions and attainment. More specifically, the study examined what we have called the sex role values of an urban sample of 11th-grade boys and girls. The study was designed to fit within the NIE framework for research on career awareness that specifies: 1. background variables, such as ability, sex, cultural background, and socioeconomic status; 2. process variables, including self-assessment skills and decision-making skills, along with knowledge, values, preferences, and self-concept, as influencing the making of decisions; and 3. attainment variables, such as occupational attainment, educational attainment, earnings, mobility, and job satisfaction (National Institute of Education, 1976). The present study also has the long range goal of providing sets of values in the areas of marriage and parenthood that could accompany occupational values in interventions designed to assist students to further their career exploration.

In order to examine the effects of sex role-related values on the career decision-making process, the domain to be studied had to be explicitly identified. Occupational values, a major part of the adult role for males, previously had been studied, and models for the procedure of defining a value domain already were in existence. For example, the System of Interactive Guidance and Information (SIGI), developed after an extensive research effort by Martin Katz (1973), includes a set of occupational role-related values that are used in helping students define the needs or satisfactions they may find in an occupation. These occupation-related values are: High Income, Prestige, Independence, Helping Others, Security, Leadership, Interest Field, Leisure, Variety and Early Entry. Katz, starting from past research and using a structured interview, was able to elicit from students the dimensions along which they construed occupations.

While occupation-related values had been identified through research, and, as a result, were in a system now in use by students, there was no similar set of terms and definitions identified and demonstrated to be useful to students in clarifying values related to major adult roles traditionally ascribed to women and believed to constitute their major satisfactions as adults--parenthood and marriage. The present research was the first step in the development of these sets of values, and the attempt to relate them to career-related decisions.

The development of an expanded view of the content of career decision making as proposed here should encourage both boys and girls to examine values related to occupational, marriage and parenthood roles, and to consider each in planning for the future. In the long term, including these additional sex role-related values in career decision-making approaches should affect the distribution of sexes in many occupations by reducing sex-related occupational segregation. In the short term, career education curricula and career decision-making models should be modified to include what are called here sex role values. These ideas provided the framework for the current research study.

The specific goals of the study were:

- to develop statements that described values related to the decisions to marry and to have children;
- to describe the responses of students varying on such characteristics as sex, SES, and ethnic background to the values; and indirectly,
- to provide the foundation for development of intervention materials to assist students in career and life planning exploration.

The next chapters of this report provide a review of the related research literature and describe the procedures. The procedures chapter includes a description of the pilot studies conducted to develop the sets of values in the areas of marriage and parenthood, and provides the background and rationale for the other variables used in the study. The remaining chapters of the report describe the findings. First, a description of the 11th-grade urban sample of students on demographic and historical variables is provided. Second, analyses of the occupational, marriage, and parenthood values are presented for the total group of students and subgroups represented in the study as defined by sex, socioeconomic background, and ethnic group. The report concludes with a summary of the main findings.

CHAPTER I

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Katz, M. Career decision-making: A computer-based System of Interactive Guidance and Information (SIGI). Proceedings of the 1973 ETS Invitational Conference, 1973, 43-69.

National Commission on Working Women. An overview of women in the work force. National NOW Times, March 1979, p. 12.

National Institute of Education. Abstracts: Projects funded under the education and work grants competition. Washington, D.C.: Department of Health, Education, and Welfare, 1976.

Psathas, G. Toward a theory of occupational choice for women. Sociology and Social Research, 1968, 52, 253-268.

CHAPTER II

REVIEW OF THE LITERATURE

Initially, the primary research source for this review was the psychological literature. However, as work on the grant progressed, studies from the field of sociology, especially the areas of labor force participation and fertility, and marriage and the family, as well as studies by economists offered insights not available in the psychological literature. Thus the studies in this review were selected on the basis of their pertinence to the focus of the present research rather than being limited to any one discipline. The focus was defined in terms of the occupational, marriage and parenthood values in relation to educational and occupational decisions and plans.

The literature review is organized in four sections. The first is concerned with sex and minority group differences in occupational choice. The second section examines the current status of sex role attitudes and the research on role models. The third section briefly examines research on values, and the fourth the current status of theories on career development and career decision making. Included in this last section is a consideration of research suggestive of the additional tasks to be added to career development stages and/or career decision-making approaches. Where sex, socioeconomic status (SES), and minority group similarities or differences have been a part of studies, these are noted.

A. Occupational Choice: Group Differences

In the Introduction to this report statistics were cited on the extent of occupational segregation by sex and differences in earnings for women and men. These differences are examined in greater detail for minority groups and women in a report of the U.S. Commission on Civil Rights (1978). The data are based on national samples and are presented for seven minority groups, among them two of the groups with which the present research is concerned, blacks and Puerto Ricans (Hispanic). The data on high school completion, median earnings for college educated persons, unemployment, occupational segregation, and average earnings increments are of particular interest.

The data on high school completion rate are given in terms of the percent of each group's completion rate compared to that of majority (white) males as the base of 100 in 1976. The rates of completion for females were: white 99%, black 85%, and Puerto Rican 78%. For males the completion rates were: black 85% and

Puerto Rican 78%. The sexes are alike in their rates of completion within each ethnic group, but the ethnic groups have lower high school completion rates. Rates for college completion are not similar, however, and differ for the sexes within ethnic groups. Completion rates for females in 1976, as percent of white males, were: white 65%, black 32%, and Puerto Rican 12%. For males, the completion rates were: white 100%, black 32%, and Puerto Rican 18%. Rankings for median earnings in 1975 (i.e., some earnings) by 12 - 15 years of school completed were: majority males, black males, black females, and majority females. The same rankings of earnings in 1975 were found for four or more years of higher education.

The percent of the labor force 16-19 years of age, out of work, and actively seeking work in 1976 was also analyzed in relation to the majority male base of 1.00. For females, the ratios were: white 3.25, black 8.69, and Puerto Rican 6.47. The ratios for males were: white 1.00, black 8.10, and Puerto Rican 9.36. The earnings were also examined in terms of the average earnings increment by age. Thus, in 1975, black males' average earnings increment by age was 49% as much as the earnings increment for majority males. In dollar amounts, this meant $185.30 compared to $357.75. For Puerto Rican males, the data were 26% and in dollars, $97.97. The data for females were:

	%	$
White	15	57.55
Black	8	29.95
Puerto Rican	-5	-20.00

The discrepancies in dollar amounts for male groups are large, but the differences for females are indicative of the extensiveness of the effects of level of education, occupational segregation and discrimination.

Of particular interest in terms of career decisions and occupational choice are the indicators of the extent to which each group would have to change occupations in order to have an occupational distribution identical to majority males. In 1976, these percents were:

	Females	Males
White	66.1%	-
Black	69.3%	37.9%
Puerto Rican	78.9%	50.4%

Thus, within all the female groups a greater percentage would have to change occupations to achieve equity than would have to within the male minority groups.

Almquist (1979) has also reviewed data on labor force participation, occupations, and earnings for males and females and several of the minority groups, including blacks, Spanish-speaking, Asians, and native Americans. She cited data on the extent to which the jobs held by women have not been equally rewarded. Studies that have measured job characteristics, such as length of training required, autonomy, and freedom from supervision, found that nearly two-thirds of the difference between female and male earnings ($2,248) can be accounted for by the "...fact that job characteristics translate into higher payoffs in men's work than in women's work" (p. 24). Spaeth (1977) has documented this effect in another analysis, using a college sample. He found, in a follow-up of 3,081 persons in the University of Illinois graduating class of 1961, that women reaped lesser returns in occupational status from advanced education.

Picou and Campbell (1975) compiled a series of articles on career behavior of special groups. Among the special groups examined were American Indians, Asian Americans, and Mexican Americans, as well as women. Membership in these socio-cultural groups appeared to influence career opportunities and choices.

Socioeconomic differences in career choices have been examined also. Campbell and Parsons (1972), for example, found that non-disadvantaged junior high school students received higher scores on Crites' Vocational Development Inventory than disadvantaged students, although the disadvantaged scored above the published grade level. A number of interactions were also found; the occupations most frequently chosen by male disadvantaged students were in the technical areas in contrast to a most frequent choice of service-related jobs by the other students. In a similar study with elementary school students, Clark (1967) found that boys from the middle class were more apt to prefer professions than lower class boys who preferred "government" jobs. (These studies did not control for ability level.)

The occupation of one's parents, especially of one's father, was found to significantly affect the accuracy of "success" predictions for certain courses of study in college (Lunneborg and Lunneborg, 1968). Mulvey (1963) however, did not find that parental socioeconomic status related to career patterns of women. In general, these studies of sociocultural and economic differences do not give generalizable findings relating the influence of sex roles on occupational choice. No studies were identified where the male sex role (marriage, family, home maintenance) was related to career decision making.

Osipow (1973), in summarizing the research related to social class membership, noted that both social class membership and sex are important situational determinants of career development. These variables affect attitudes and the economic resources available to implement career plans. In a critique of the literature examining minority group status, Osipow stated that, in general, research on career development for these groups has confounded race, social class, ethnicity, educational levels, and economic variables.

A review of policy issues related to occupational segregation for women was published in a special issue of Signs (1976). A variety of approaches to reducing occupational segregation were presented. Rosabeth Moss Kanter identified three models of research:

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the "temperamental model" stresses women's character and personality in regard to socialization and sex roles; the role-related model stresses the family and individual role conceptions; and the social structural model, which examines the nature of organizational structures and work. The first model leads to interventions such as assertiveness training; the second to stressing individual role conceptions; and the third, according to Kanter, to the modification of hierarchies, flexible time, lines of mobility out of clerical work, and so on. Kanter argued that the third model has the greatest potential, but it seems mistaken to argue for one approach over another. Each intervention model seems applicable in different settings, and it is likely to require all three to effect major change in occupational segregation data.

In accord with the first approach, socialization and sex roles, there are data to illustrate the origins of the occupational segregation patterns. The origins can be found in studies of children's occupational choices and adults' views of the appropriateness of occupations for females or males. Looft (1971) demonstrated that six- to eight-year old children gave different responses according to their sex when asked what they wanted to be when they grew up. There was a striking variability in the boy's responses and near unanimity for girls (75% of the girls' responses were in two categories--teacher and nurse). A total of eighteen occupational categories were given by boys and only eight by girls. Iglitzin (1972) reported two studies of sex stereotyping with fifth grade school children in 1971-1972. As early as the fifth grade, boys provide a description of what it might be like on a typical day on a job, but girls emphasize details of family life rather than career activities.

Schlossberg and Goodman (1972) asked elementary school children to respond to a set of drawings representing work settings (6 of feminine occupations and 6 masculine). Children were asked, "Could a man work here?" "Could a woman work here?" Children were more ready to exclude women from men's jobs than men from women's. A study by Entwisle and Greenburger (1972) examined ninth graders' attitudes towards women's work roles. Specific attitudes included whether women should work, what kinds of jobs women should hold, and whether women are intellectually curious. Middle class boys of high I.Q. were more traditional; boys consistently reflected traditional sex-role stereotypes more than girls.

Prediger, Roth, and Noeth (1974) reported on a nationwide study of 11th-grade students. Over 50% of the girls selected vocational preferences that fell into three job families: education and social services, nursing and human care, and clerical/secretarial. Only 7% of the boys selected these occupations. Boys were much more likely than girls to prefer vocations in engineering, natural sciences, business management, and technologies-trades.

Several studies have examined sex stereotyping of occupations. Shinar (1975) and Panek, Rush, and Greenawalt (1977) found both females and males stereotyped occupations in terms of the sex of employees.

usually associated with the occupation. Albrecht (1976) and Albrecht, Bahr, and Chadwick (1977) reported a study of 2,227 households in Utah. Age and social class, as well as sex differences were examined in stereotyping of occupations. Greatest differences were found according to age and education, with younger, better educated adults more egalitarian in perceiving occupations as available to both males and females. Medvene and Collins (1976) had psychotherapists and school counselors rate the prestige and appropriateness for women of a group of occupations. The samples of raters differed little in their rankings of occupational prestige, but differences in ratings were found for appropriateness for women. School counselors (female and male) were more likely to rate occupations as inappropriate for women.

The studies cited in this section have found early sex differences in occupational choice and continued sex-stereotyping of occupations through college-age and adult samples. The findings are consistent with a larger series of studies in sex-typed interests and activity preferences summarized by Maccoby and Jacklin (1974, p. 280-283). And they are consistent with studies which have tried to predict women's career choices, studies that show the effect of both stereotyping of occupations and perceptions of appropriate adult roles for women.

Predicting women's career choices. Two studies, by Astin and Myint (1971) and Harmon (1970), are of particular interest because they are longitudinal. Astin and Myint (1971) followed up 5,387 women (tested in 1960 in the Project TALENT study) five years after high school. Measures of abilities, interests, personality and background were used.

Discriminant analyses showed that scholastic aptitudes, especially in mathematics, and high educational aspirations (college/advanced degree plans) were the best pre-college predictors of a career orientation (sciences, social services, professions, and teaching groups). Interests and personality measures were not good predictors. A second discriminant analysis revealed that BA degree, college and graduate school attendance were important predictors separating natural sciences, social service/social sciences, and teaching from office work and housewife. Having an AA degree carried a large negative weight, and the variables married and children also had negative weights. A third discriminant analysis indicated that the most effective predictors in separating the career groups and non-career (office work and housewife) groups were completing college and college attendance, and selected aptitude variables. Again, expressed interests and personality measures were not predictive, as they are for males.

Harmon (1970) followed up 169 women 10 to 14 years after college entrance (all had high scores on the social worker scale of the SVIB-W). Women were asked what their "usual career" was, and were categorized as career committed and non committed on this basis.

The two groups did not differ on high school rank. The career committed group attended college longer, worked more years after leaving college, married later in life, had fewer children, more children at later ages, and more were unmarried.

Klemmack and Edwards (1973) also studied college women who indicated that the occupation that they would most realistically pursue was a feminine occupation and concluded that marriage and family plans serve a critical mediational function.

The findings of Astin and Myint, Harmon, and Klemmack and Edwards are consistent with the hypothesis that a woman's career commitment and occupational choice are related to her views of adult sex roles and life style choices. Decisions about marriage, children and homemaking responsibilities appear to be predictors of career commitment. In contrast to these findings for women, Strong and Campbell (1966) reported a number of follow-up studies for males which indicated that expressed interests were a major predictor of career choice.

Almquist's study (1974) followed a class of college women over four years. Women choosing occupations with more males employed did not differ from women entering occupations predominantly female in either sociability experiences or in relationships with parents. A number of studies, both in psychology and sociology (status attainment studies) have pursued variables thought to be related to women's occupational choice. Typical of these are Burlin (1976), Hawley (1972) and McLaughlin, Hunt, and Montgomery (1976) in psychology, and Falk and Salter (1978) for the status attainment process of rural women. As these latter authors note, there have been relatively few studies of the status attainment process for women. As with the psychological studies of career choice and development, studies to date have primarily focused on majority males. Among other reasons, this focus has been reinforced by the different labor force participation patterns of women, typically with multiple entries and exits due to child bearing (see also Falk and Cosby, 1978). Levine (1976) has summarized much of this literature on educational and occupational attainment, noting the lack of attention to women in this research area. And Marini (1978) has provided an extensive, thorough review of sex differences in studies of adolescent educational and occupational aspirations.

Many of the studies summarized above provide evidence that aspects of sex roles appear to be important determinants of women's occupational choices and career patterns. There is recent evidence that changes in sex-role attitudes are occurring. Research in sex roles and sex-role attitudes is examined next, particularly for evidence of sex, ethnic or SES differences. It is important to note that unless SES is specifically mentioned for a study, there has been no attempt to control or estimate its effect. This is particularly important for studies of ethnic groups, since there is often a failure to control for SES. Any ethnic group comparisons must be viewed cautiously, although they are reported here when available.

B. Sex Roles and Sex-Role Attitudes

The status of research on sex roles was reviewed by Lipman-Blumen and Tickamyer (1975).[1] They noted that women are socialized to receive their total gratification through family roles, whereas men can look to both occupation and family roles for fulfillment. Angrist (1974) indicated that learning of the adult sex role is seen primarily as occupation-directed for males and family-directed for females. Russo (1976) argued that,

> Motherhood is chief among the prescriptions of sex-typing... the major goal of a woman's life is to raise well-adjusted children....As long as this situation exists for the vast majority of women in Western society and the world in general, prohibitions may be eliminated and options widened, but change will occur only insofar as women are first able to fill their mandate of motherhood. (p. 144)

The U.S. Census reported in 1972 that over 90% of the women above the age of 25 were married and over 90% of that group had children (cited in Russo, 1976).

Several writers have discussed sex roles and their relationships to women's occupational choices and careers. Among the definitions of sex and gender roles which have appeared in the literature are those of Lipman-Blumen and Tickamyer (1975). Gender roles are considered useful when viewed as mediating factors between gender identity (male or female) and sex role. It is via gender roles which develop out of gender identity, that males and females are funnelled into what is societally defined as sex-appropriate behavior. "The study of sex roles concerns roles within all structured settings, the norms and rules governing role performance in these settings, the correlates of role location and performance, the special situation of deviant roles and those who occupy them, and the mechanics of role change" (p. 303). (Others have used the terms sex role and gender role differently, e.g., Gould and Kern-Daniels, 1977.)

Bernard (1976) distinguished two components in the concept of role: expectations or norms including beliefs and cognitions, and enactments or conduct. These are two key distinctions, much like the distinction that is made below for values; that is, there is a normative, strongly pervasive, socially influenced and reinforced set of beliefs, and the reflection of these beliefs in actual conduct or behavior.

What factors or aspects of sex roles are critical in the definition of sex roles for women in relationship to occupational choice and career decision making? Two critical factors can be identified: marriage (and the role of wife) and motherhood (parenthood). A review essay on marriage and the family was published in Signs (Lopata, 1976) and a number of articles have tried to clarify these areas, by defining terms or by calling attention to neglected aspects of these roles.

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[1] Huston-Stein and Higgins-Trent (1978) have reviewed studies related to the development of feminine role orientation.

Bernard (1976) called beliefs about women's place the linch pin of the traditional female role. Data from a 1972 study of entering college women showed about one-fourth of them believed that the woman's place was in the home. This belief persists despite actual evidence of increasing labor force participation by married women and women with children under six years of age. The discrepancy between the belief and the actuality could be viewed as a plus for women, a tolerance for deviations from an anachronistic norm. However, Bernard suggested that it also has dysfunctional consequences for women: "Life is organized and decisions are made as though the norm were actually a genuine and functional adjustment to a current situation" (p. 212).

Darley (1976) discussed the differences in achievement between males and females and provided an analysis of role behavior, particularly the ambiguity and lack of clarity of roles. She argued that it may not be only the kinds of behavior demanded by different sex roles that lead to differences in achievement, but also differences in the clarity and consistency with which these sex role demands are defined: "...The obligations and responsibilities of wifehood are not validly depicted in movies and popular magazines nor are they clear simply from observing the behavior of one's parents, especially when such observations are made from the perspective of a child." And on the role of mother,

> The explosion of books, articles, and television talk shows on the subject of motherhood suggest that the expectations for this role are almost without limit, stunningly unclear, and highly variable. Is a good mother permissive or firm or both? Is she a friend to her children or an advisor or both?... Note that what is expected of a good father is also unclear, but the parent role is not generally taken to be as salient for a man as it is for a woman. (p. 87, 89)

A major series of studies on sex, career, and family have been carried out in Britain. Fogarty, Rapoport, and Rapoport (1971) presented reports that included examination of the special problem of women's promotions to top jobs, experience in both Eastern and Western European countries, and studies of families and work careers. They suggested that currently highly qualified women experience the same complexities as men (e.g., fitting together personal, interpersonal and social influences in the choice and development of an occupational career) plus the additional set of complexities associated with child rearing.

A valuable analysis of the dilemmas faced by "dual career families" is provided in case studies (Fogarty, Rapoport, and Rapoport, 1971). The dilemmas faced by these families included what these authors called: dilemmas arising from sheer overload; dilemmas rising from the discrepancy between personal and social norms (for example, work after childbirth); dilemmas of identity--one cannot be a good woman and a working woman, because work is seen as masculine; social network dilemmas with family and inlaws; and role cycling dilemmas. This latter dilemma occurs in two ways--between the occupational roles of husband and wife and family roles, and between the occupational role of the husband and the occupational role of the wife. Johnson and Johnson (1976) have presented a similar analysis of role strain and role proliferation in the two-person career couple. Studies have also looked at the tradeoff in child care and income for males and females (e.g., Thomas & Neal, 1978).

A framework for problems faced by families in which both partners are committed to work may be part of the analysis required to assist theorists and practitioners to understand the relationship between sex role values and career decision making for women since it is not only professional women who face role proliferation. The goal in career decision theory is not to understand or predict only occupational satisfaction, but more generally, satisfaction with work as it fits into a life pattern. One small-scale study indicates that marriage and a career is becoming expected (Rand & Miller, 1972). Almost all of 60 junior high, 60 high school, and 60 college women both desired and expected to get married (97%) and to work (95%).

Other analyses that emphasize the importance of sex roles to career development are those that examine the stages of women's lives. For example, there are the life style patterns cited by Ginzberg (1966) and the British pattern reported in Fogarty, Rapoport, and Rapoport (1971). Bernard (1975) discussed stage theories of development and proposed that for women a more useful analysis may consist of examining developmental discontinuities--that is, the sharp changes that occur at critical points in life. The discontinuities are: about age 8, when little girls are deflected toward *dependency* rather than independence; *marriage*, where the woman finds out that she will have to supply the dependency needs of her husband, at *motherhood*, where she has sole responsibility for the care of a dependent infant; and the two later stages, when the last child enters school, the stage of *middle-motherhood*, and finally, *late-motherhood*. These stages are very different from those proposed for male adult development (e.g., Levinson, 1978) and the analyses of male sex roles (Pleck, 1976). And they are not related to the woman's age or labor force experience, which may well be important determinants of later labor force participation and fertility expectations (Waite & Stolzenberg, 1976; Stolzenberg & Waite, 1977). Falk and Cosby (1978) elaborated upon a typology of women's possible marital/familial statuses (extending the earlier perspective on the occupational choice of women provided by Psathas (1968)). These analyses of statuses included such categories as, never married--without children; never married--with children; married--without children; married--with children; and so on. Within the children categories Falk and Cosby have subgroups such as children are preschool at home, children are preschool in day care, children are in school, and children have left home. These numerous combinations, which are not limited narrowly by age, appear to preclude age-defined stages for women, unless very broad age spans are used.

However, all writers agree that traditional sex roles are in the process of change. Writers such as Lipman-Blumen (1976) cite demographic data, e.g., the increasing participation of women in the labor force, later ages of marriage, fewer children, and decline in fertility rate. However, a major study illustrating the change in traditional sex-role attitudes was conducted by Mason, Czajka, and Arber (1976). These authors used data from five sample surveys between 1964 and 1974 and analyzed common items. More egalitarian role definitions were endorsed, with the change occurring about equally for higher status and lower status women. Attitudes about rights in the labor market were more strongly related to attitudes about roles in the home. Education and employment were the two variables that were most important in predicting women's attitudes. The well-educated, especially those completing college, were less supportive of traditional norms. And those who were more recently employed were also less supportive of traditional norms. Examples of the types of items analyzed are: A preschool child is likely to suffer if his (sic) mother works; Men should share the work around the house with women such as doing dishes, cleaning, and so forth; Men and women should be paid the same money if they do the same work.

In addition to changes in women's attitudes, sex differences in sex-role attitudes have been found. Entwisle and Greenberger (cited above, 1972) included three questions on women's work role to a sample of Maryland ninth-grade students in 1968. Males were consistently more traditional than females. Angrist, Mickelsen, and Penna (1976, 1977) reported sex differences in high school students. In data collected in 1975 females had a more egalitarian attitude as expressed on items such as, Raising children is more a mother's job than a father's; A wife should work only if there is a definite economic need; and Married women should not work once they have children. There was a small subsample of black students in the study, and they tended to have more conservative attitudes than the white students. It was "easier" to explain the sex-role ideology scores of females: women who had higher school grades, from higher SES backgrounds, and whose mothers worked were "clearly socialized with more 'liberated' and equalitarian attitudes" (p. 185). Male sex-role ideology scores were harder to explain (R^2 for females was .24; for males, .16). Family background was not important and the only significant beta was for type of school (boys at a more elite school were less traditional).

Gackenbach (1978) administered two sex-role inventories to black and white and female and male undergraduate students:

Attitudes Toward Women Scale and the Women as Managers Scale. The analysis was based on 96 students (12 per cell) in a sex by race by career goal (business or helping professions) design. The only difference on the WAMS was a main effect for sex. Females favored expanded roles for women in the business world more than males. For the AWS scores, race and sex main effects were significant and two interactions--sex x race and sex x career goal. Males were more traditional in attitudes towards women's roles at home, and blacks were more sex-role traditional than whites. The interaction for sex x race showed white females had more liberal sex role attitudes than the other groups. The interaction for career goal showed that males in the helping professions were more sympathetic to expanding roles for women at home than were males whose career goals were in business. For women it was reversed: those with business-related career goals were more liberal toward women's expanding sex roles at home than those with career goals in the helping professions.

Thus, recent studies have shown that attitudes toward women's roles in the home, as mothers, and as workers are becoming more egalitarian. The trend is most pronounced for females, particularly those with more education and labor force experience. Males are more traditional, as a few studies have shown, and apparently black men and women are also more traditional in their views of women's roles than are white men and women.

One other related area is examined in this section. It has often been suggested that role models are important for the educational and occupational aspirations of youth. Oberle, Stowers, and Falk (1978) reported a study in which place of residence (urban/rural) in Texas was examined in relation to type of role model for black youth. The question was posed in forced choice form: "Think of a person whom you would most want to fashion your life after" (p. 16). Alternatives included Teacher or School Counselor, Father or Mother, Older brother or sister, Relative not in immediate family, Close friend--not relative, and Glamour (TV or movie star, famous athlete, important government figure). Students did not have the option of naming "no one."

An earlier study conducted by Oberle (1974) had compared white and black youth from rural areas. In that study black boys and girls preferred different types of role models than whites, both when sophomores and seniors in high school. Glamour figures such as famous athletes were popular especially for black youth. In the study of rural black youth as sophomores, place of residence was significant. Black rural boys preferred glamour figures (49.4 vs. 39.6% for urban blacks) and Father or Mother (25.8% vs. 17.8%). Urban boys chose Relative not in immediate family and Close friend more frequently than did rural youth. Black girls differed in their role models from the boys, naming Teacher or School Counselor more frequently and Relative not in the immediate family. The Glamour figures were less frequently chosen by black girls (14.9% of urban girls and 26.0% of rural girls). Thus, variables related to type of role models between these two studies included year in high school, sex, age, ethnic group and place of residence. These differences imply different aspects of a role model's life may have salience for youth. The next section is concerned with values, the important needs and satisfactions that individuals seek to obtain.

C. *Values*

Maslow (1954) defined values in relation to his hierarchy of needs: "The gratification of any such need is a 'value'" (p. 6). One reason for knowing the individual's values is to be aware of the influence of values on perception. Another reason for knowing values is to know the individual's nature, "Many problems simply disappear--others are easily solvable by what is in conformity with one's own nature" (Maslow, 1971, p. 111). Maslow's well-known hierarchical theory of motivation (1954) included needs such as safety, security, love, self-esteem and self-actualization.

Margenau (1959), like Maslow, did not distinguish between value and need: "A value is the measure of satisfaction of a human want" (p. 38). He acknowledged that this brief definition did not convey the significance that attaches to the word *value*, noting that it left aside the ideas of intrinsic worth and that it was also an awkward approach to the appraisal of abstract and ideal things such as honesty or friendship. Margenau placed a different perspective on the idea of value by listing the entities which carry values or to which value is said to adhere. These are first, ordinary physical objects; secondly, processes in human activities designed to secure such objects; and then, on a scale of increasing abstractness, actually experienced relations or conditions (e.g., fellowship, parenthood, freedom) and finally ideals such as truth, goodness, and beauty. These entities are held together by a common bond: they can be desired or spurned by human beings.

Margenau also identified two kinds of values, one that he labeled factual and the other normative. The difference is that factual values are observable preferences and desires of a given people at a given time. Normative values are the ratings, in some sense, which people *ought* to give to valued objects. These two aspects of values are like the two aspects often distinguished for sex roles. Bernard (1976), for example, discussed changes in stability in sex roles in terms of norms and behaviors, using the idea of norms as expectations or beliefs and behavior or conduct as two aspects of a definition of *role*.

Rokeach (1973), in a brief review of earlier definitions, identified two perspectives from which values have been viewed. In the first, all objects have a one-dimensional property of value (or valence) ranging from positive to negative. The second perspective is the person approach represented by Vernon and Allport (1931) and *The Study of Values*. According to Rokeach, a *value* is an enduring belief that a specific mode of conduct (instrumental value) or end-state (terminal value) of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence. A value system is an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance (p. 5). Values, like beliefs, have cognitive, affective, and behavioral components . A value has a behavioral component in the sense that it is an intervening variable that leads to action when activated.

What are the functions of values and value systems for Rokeach? "...values as standards that guide ongoing activities, and of value systems as general plans employed to resolve conflicts and to make decisions. Another way is to think of values as giving expression to human needs" (p. 12).

Attitudes are distinguished from values since an attitude refers to an organization of several beliefs around a single object or situation. On the other hand, "A value...refers to a single belief of a very specific kind. It concerns a desirable mode of behavior or end-state that has a transcendental quality to it, guiding actions, attitudes, judgments, and comparisons across specific objects and situations and beyond immediate goals to more ultimate goals" (p. 18). This latter, expanded definition fits the type of values related to sex roles with which the present study is concerned. The definition also fits the level of abstraction at which the occupational values developed by Katz (1963) are located. Terms such as Leadership, Major Interest Field, Leisure, Independence and Early Entry are at a level of abstraction which permits them to be used to evaluate different occupations, but they are, in the main, not as abstract as the instrumental and terminal goals described by Rokeach. (There are some obvious overlaps, but Rokeach has included terminal values such as national security, salvation, wisdom, a world at peace, and a world of beauty, among others. These are at a different level and more removed from everyday experience.) Norris, Katz and Chapman (1978) provide a more detailed summary of sex differences in values. In this review we will focus on sex differences in the Norris, Katz and Chapman study. Norris, Katz and Chapman (1978) reported a unique study of the process of career decision making based on data collected during student use of SIGI (the System of Interactive Guidance and Information, Katz, 1973). The college students were observed in the act of career decision making and data were collected unobtrusively by the computer during actual use of SIGI. (The majority of data on career decision making and values are collected through surveys, as is the present study.)

Age differences, sex differences, and "sex typical/sex atypical groups" were examined for the occupational values in SIGI, as well as indicators of process variables in using SIGI (e.g., consistency/inconsistency of value weights, number of occupations requested for examination, and so on). Age differences on the values were small and infrequent. Sex differences tended to confirm the stereotype of the active, striving male and the passive nurturant female.

For males the top three values were Security, High Income, and Work in a Major Field of Interest; for females the top three values were Work in a Major Field of Interest, Security, and Helping Others. The direction of the sex differences were: Helping Others, F>M; Early Entry, F>M; Leadership M>F; Independence, M>F; and Work in a Major Field of Interest, F>M. No significant sex differences were found for the values of Prestige, Security, Variety or Leisure.

Although there were sex differences in average ratings, there were overlapping distributions on all variables examined. In an effort to "account for" the mean sex differences, sex typical and sex atypical groups were formed using the main values that predicted the dependent variable sex in a regression analysis (Helping Others, Leadership, Early Entry, and High Income). Each individual could then be classified into one of four groups: female typical (actual and predicted sex the same), female atypical, male typical, male atypical. Differences on several variables were then examined by two-way ANOVA's. One such variable examined was the predominant sex membership of occupations chosen by sex-typical and sex atypical groups. The base rate for occupations in SIGI are that 60% of the occupations are predominantly male (33% or fewer women in the occupation), 22% are predominantly female (66% or more women in the occupation), and 18% are neutral (between 33% and 66% women in the occupation).

The expected difference in sex typical and sex atypical groups occurred. For example, 83% of typical males chose male occupations; and 41% of the typical females chose female occupations. However, 54% of the atypical females chose male occupations vs. 30% for the typical females. As Norris, Katz and Chapman point out, the SIGI system is in one sense "sex blind" and an individual who wants to escape from sex stereotypes of occupations can do so. However, *individuals* themselves are "sex blind" to different degrees, as the differences in sex role attitudes demonstrate. The research described in the following chapters of this report is concerned with clarifying the extent to which individuals may be able to make "sex blind" choices, and to consider whether entering other sets of values in the career decision-making process may assist in reducing the sex-based differences in occupational and earnings distributions.

In another study of values, Tyler (1978) was concerned with the values of adolescents in India and America. The values were in the areas of beliefs individuals held about the world (e.g., most people can be trusted) and personal direction (I enjoy activities and adventure). Although small samples were involved (24 males and 24 females) and sex analyses were not reported, the author concluded that "...there is a large amount of similarity between widely separated groups of high school-age people..." (p. 143).

Values for marriage and parenthood, that is, the needs or satisfactions that individuals may take into account in making the decision to get married or to become a parent are largely unexplored. Sometimes the reasons people give for getting married (e.g., Kirkpatrick, 1963) or for having children (Hoffman & Hoffman, 1973) are reported. Informal sources call attention to these values, as when the New York Times provides journalistic articles, "What the doctors' wives expected, they said, was prestige, security, happiness, pride and the satisfaction of performing as loyal helpmate to a man of service. What many of them got instead was disappointment" (Bennetts, 1979). Economists (e.g., Sawhill, 1977) and sociologists (e.g., Bernard, 1974, 1975) also provide hints, but to date no systematic study of the values or satisfactions for individuals in marriage or parenthood has been located. Sawhill provided a particularly useful summary of the economist's perspective on marriage and parenthood in relation to earnings and the assumption that scarce resources are the constraint on people's freedom to choose from among alternative courses of action. She also forsees that in the future, "Personal values and psychological needs met by marriage, children, and family life will be the final arbiters of choice" (p. 124). To this can be added the needs met by work, which together with the others will permit an understanding of educational, occupational, marriage and parenthood patterns. The psychological approaches to understanding career choices are discussed next, in a section on the current status and findings of career development and career decision making.

D. Career Decision-Making Approaches

Earlier reviews of career development theory (Vetter, 1973) and/or career decision-making theories (Tittle and Denker, 1977) have been critical of these theories because they do not take explicit recognition of sex differences in occupations chosen and labor force participation patterns, nor do they include variables or developmental tasks likely to encompass the contingency planning (marriage and child bearing) and delayed commitment to careers that occurs for many women. To what extent has this state of omission changed? A symposium held at the American Personnel and Guidance Association meeting in Las Vegas, Nevada, April 1979 provided a forum to present the current status of theories (approaches). The symposium was entitled, "Is career decision making career maturity? The models, the measures, and the data."

Super (1979) places career decision making within career development theory and career maturity, but neither can be conceived of without the other. That is, career development as the confrontation of a series of developmental tasks cannot be examined without attention to decision determinants, processes and styles--decision-making theory. Super defines career maturity as the readiness to make decisions when required by the structure of schools, the working world, and by the sequences of biological and social development.

Super's current model for research on career attitudes, knowledge, and skills includes the dimensions of Autonomy, Planfulness, Exploration, Career Decision Making, Knowledge (self and work information), and Realism. There is no explicit discussion of women's career development.

Harren (1979) presented his work on career decision making, defining his framework as, "a description of a psychological process wherein one seeks and organizes information, deliberates among alternatives, makes a commitment to a specific course of action, and takes steps to carry out that commitment" (p. 1). He notes major approaches to decision making: The Gelatt model in which the emphasis is on helping the decision maker realistically assess the likelihood that a given decision can be implemented and will result in the achievement of the desired outcomes; and Katz's model which also considers probabilities, but where the focus is on clarifying the decision maker's values and value priorities. Both originated in mathematical decision theory, and are categorized as prescriptive models by Jepson and Dilley (1974), since their purpose is in prescribing how people ought to decide (but not what they ought to decide). Other approaches, e.g., Tiedeman and O'Hara (1963) are descriptive, since they attempt to picture how decisions are made. Harren's approach has aspects of both description and prescription: the approach assumes that progress through the stages of the decision-making process (description) depends upon the characteristics of the decision maker (prescriptive of the effective decision maker), the type of decision involved (the developmental tasks are prescriptive), and the decision-making context. Of most interest in terms of the present research is Harren's description of the developmental tasks that confront his college-age decision makers, since the developmental tasks refer primarily to career-relevant choices.

Three student development tasks (areas) are proposed: Autonomy, Interpersonal Maturity, and Sense of Purpose. Sample career decision-making tasks within each area are:

Autonomy: To leave home; to go to college; to find a job.
Interpersonal Maturity: To choose a roommate; fo find a life partner to marry; to choose a mentor, and to dissolve relationships that are deteriorating, restrictive, or destructive.
Sense of Purpose: To choose a major field of study in college; to find satisfying leisure activities; and to choose an occupation.

While other aspects of the model may be examined for their relevance to women's experiences, these are particularly important in terms of the substantive examples of tasks proposed as relevant to career decision making. For example, Sense of Purpose for women (and men) should include fertility and marital expectations, as these are likely to influence the type of occupation chosen and extent of labor force participation of women (Psathas, 1968; Falk & Cosby, 1978). The exact way in which these variables are influential is not identified at present, although for the variable of anticipated labor force participation at age 35 Waite and Stolzenberg (1976) and Stolzenberg and Waite (1977) have provided nonrecursive models, showing apparently reciprocal causal effects for labor force participation plans and fertility expectations. Similar data are used by Mott (1978), with more extensive analyses of withdrawal and re-entry to the labor force with children, and so on. (These last three-named studies used the National Longitudinal Survey of Labor Market Experiences (NLS) data base developed by the U.S. Bureau of the Census and the Ohio State University. The sample started in 1968 with about 5000 women who were then representative of females aged 14 to 24 years.)

These sociological path models have implications for the research reported on Harren's model by Kass (1979). Two path analyses reported by Kass used several instruments (below) and the dependent variable of satisfactory choice of college major in one analysis and male dominance index for the college major in the second analysis. The instruments used were:

Assessment of Career Decision Making (ACDM), a measure of the degree a student has progressed through four stages toward choosing a college major.

Bem's Sex Role Inventory (BSRI), with 3 scales of the degree to which students endorse masculine qualities, feminine qualities or androgenous qualities.

Attitudes towards Women Scale (AWS), a measure of the degree to which students endorse liberal or traditional views of sex-role appropriate behavior for women.

Attitudes towards Masculine Transcendence Scale (AMTS), the degree of liberal or traditional views of sex-role appropriate behavior of men.

Cognitive Differentiation Grid (CDG), a measure of the degree of the career cognitive complexity (number of constructs used to differentiate among occupations).

In the first path analysis for satisfaction with choice of major, gender was linked directly to sex-role attitudes (and not linked to cognitive styles) and sex-role attitudes related to satisfaction only indirectly through the ACDM. In the second path analysis, using the male dominance index for major, gender was directly linked to the dependent variable and was the most influential predictor of gender-dominant career choices. None of the psychological variables was as influential, indicating that the psychological or sociological variables needed to differentiate within sex have not been identified in the path model. Thus, Harren has used sex-role attitude measures in his work, but has not included yet the career-related decisions women make (e.g., labor force participation plans and fertility expectations) in his developmental tasks. Recalling the Norris, Katz, and Chapman use of occupational values to identify sex typical and sex atypical females and males, we can anticipate that future work may help to identify modifiable variables (that is, in the sense that individuals can assess and examine their occupational values) to use in similar path analyses and may directly include child bearing plans. Other papers examining relationships among the ACDM and career maturity instruments were presented by Prediger (1979) and Osipow (1979).

In conclusion, one other set of concepts drawn from the study of marriage and families that may add to the set of developmental tasks for career development, is noted here. These concepts are found in the emerging study of marital conflict (Scanzoni, 1978). Scanzoni's 10-state survey of married women (wife's age from 18 to 44 in 1971) had a number of pertinent findings:

> Women who preferred egalitarian marital arrangements defined work as a right; women whose sex-role preferences were traditional were more likely to regard employment as an option.
>
> Egalitarian women had a more significant impact on family lifestyle, social class position and the sharing of household duties, including being co-providers with their husbands.
>
> Egalitarian women were also likely to be more effective negotiators and have greater bargaining power with their husbands.

These findings, as well as earlier research reported here, leads to Figure 2-1, which attempts to summarize some of the major concepts that relate sex roles, values and career decision making.

Sex roles traditional for men and women are identified in Figure 2-1: for men, education and occupation; for women, the marriage relationship, homemaking, and motherhood. Values appear as part of the career decision-making process, following Katz's (1973) use of values in SIGI. However, Figure 2-1 proposes the addition of marriage and parenthood values, to complement the occupational values and thus expand the individual's consideration of the spheres of adult life in which needs will be met and satisfactions found. None of the values in any way prescribes what should be important for individuals. They are intended to facilitate the individual's decision process (rational or intuitive). The plans or anticipated behaviors are the focus of the present study, along with the career decision-making variables listed in the top part of the right-hand column. For the long range, the question is whether intervention based on exploration of these values and plans can encourage sex equality in career decision making. A number of criteria are also proposed for the long-range study of sex equality in career decision making. These criteria extend from occupational, educational and

Sex Roles

Norms (expectations)
Behavior

Traditionally
Female - Marriage relationship
- Parenthood (motherhood) & childrearing
- Homemaking

- - - - - - - - - - -

Traditionally
Male - Education
- Occupation

Stable norms despite entry of married women and women with children into the work force (Bernard, 1976). However, some shifts are occurring (Mason, Czajka, & Arber, 1976).

Values

Marriage	Parenthood	Occupational
Emotional Support	Joy	High Income
Children	Variety	Prestige
Financial Security	Sense of Pride	Helping Others
.	.	.
.	.	.
.	.	.

- -

Plans (anticipated behaviors)

Labor force participation and pattern

Marriage (timing)

Children (number & timing)

Homemaking responsibilities

- -

Now: How are these values and plans related to career decision making?

Long range: Can intervention based on exploration of these values and plans affect sex-equality in career decision making?

Career Decision Making
(Now)

1. Educational plans
2. Type of occupations considered
3. Level of occupational aspiration
4. Number of years of full-time work planned before age 41

Criteria for Sex-Equality in Career Decision Making
(Long range)

1. More occupations explored
2. More nontraditional occupations explored
3. Fertility/education plans related to preferred occupations; and Level of commitment
4. Articulation of occupational & homemaking responsibilities
5. Articulation of role cycles for husband and wife
6. "Negotiating" skills developed for egalitarian marriage (partnership)

Figure 2-1. Sex Roles, Values and Career Decision Making

fertility plans to plans for articulation of role cycles for husband and wife and development of negotiating skills for an egalitarian marriage. The ultimate criteria for the evaluation of any theories of career choice however, remain occupational desegregation and equality in earnings for sex and minority groups.

CHAPTER II

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CHAPTER III

PROCEDURES

The design and objectives of the study are described below, as are the major sections of the interview schedule. The sample and data collection procedures are also described.

A. Study Design

The overall design of the main study can be classified as a survey, since data were collected to represent and describe specific classifications of individuals. However, the method of data collection, by individual interviews, permitted the development of case study material also.

The design for the study met Objective 2 of the original NIE grant specification : to examine the influence of subgroup membership on tasks related to career decision making. Groups of females and males in three sociocultural categories and two economic levels formed the basis of the design, permitting the comparison of their responses on tasks related to career decision making. The full range of factors (sex, economic levels, sociocultural groups and age levels) is listed below with a designation of the sample included in this research study. Over the long range, it would be valuable to examine all the levels of these various factors. For example, future research could examine the results for different age groups to determine further implications for career education. In the present study the factor of age is controlled, with only one age group represented, as shown in Figure 1.

The study was designed to examine the values of 11th-grade students representing three factors: sex (2) by economic level (2) by sociocultural groups (3). A sample of 50 students per cell was collected, for a total sample size of 600.

While a full sampling of all the possible cells in the design would have been desirable, there were a number of considerations, both in terms of feasibility and cost, which resulted in the final design. For example, two levels of the socioeconomic level were sampled. The lower and middle economic levels were included since these students are most likely to be in the public education system and are the largest groups numerically, and thus were most important to be represented in the study.

Sociocultural groups represented in the design are black, Hispanic and white. These samples are representative of the largest cultural subgroups, and were included for this reason. There was also the practical problem of obtaining samples of group 5, Native

A. Age	
1. upper elementary school (ages 11-12)	--
2. junior high school (ages 13-15)	--
3. high school (ages 16-18)	grade 11 included
4. college age (ages 18-22)	--
a. in educational system	--
b. not in educational system	--
5. young adult (ages 23-30)	--
6. middle adult (ages 31-45)	--
B. Sex	
1. female	included
2. male	included
C. Economic Level	
1. low (Level 4 and below, Hamburger, 1958)	included
2. middle (Level 3 and above, Hamburger, 1958)	included
3. high	--
D. Sociocultural Group	
1. white	included
2. black	included
3. Hispanic (origin or descent)	included
4. Asian American	--
5. Native American Indian	--

Figure 3-1. Overall Design, Indicating Represented Levels of Factors in Present Study

American Indian, a numerically small group. Asian American samples could have been obtained, but were not included on a cost and percent-of-population basis.

The decisions to use one age group and sample only high school students were most critical. These decisions were made for several reasons. The majority of the 16-17 year old population is still in the educational system, whereas at the college level, about 50% of the age group is not in the main, formal educational system. While the earlier ages are important (upper elementary and junior high school ages) there may be differences in responses and hence different interview schedules needed for the earlier ages. In order to test the main ideas of the study and provide data with direct implications for career education materials, the high school level provided the logical starting point.

B. Objectives

The purpose of the study was to determine how one aspect of the career decision-making process, that is, the relative importance of sex and occupational role-related values, differed for female and male high school students in several sociocultural and economic groups. In order to study the influence of values related to sex and occupational roles, specific objectives were identified and are stated below in the form of hypotheses.

These hypotheses were:

1. There are sets of sex role-related terms, operationally defined, that meet two criteria when administered to a representative group of high school students:

    a. High school students vary in the relative weights assigned to the terms.

    That is, there is variability in the judged importance of the values for each aspect of the sex role (e.g., marriage and parenthood). Variability is an important consideration. Terms or values need to be developed that not all students endorse; e.g., if all students rated the same few marriage values as first or second, the various needs or satisfactions individuals derive from marriage would not have been well represented.

    b. High school students discriminate among the terms.

    Here the concern is that the terms have different meanings, and although all are related to sex roles, are capable of being differentiated by students. Discrimination can be tested in several ways: Can the terms be rank ordered? What are the factors underlying the sets of occupational, marriage and parenthood values? Do the factors differ for females and males?

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This objective tested whether it was possible to identify a domain of terms (constructs) related to sex roles, which were analogous to the terms Katz (1973) used to clarify values related to occupational roles. His terms met the two criteria above.

2. Subgroups of the population will differ in values associated with sex roles and occupational roles. When presented with the sex role-related terms developed in the study and the occupational role-related terms developed by Katz (1973), subgroups based on sex, sociocultural background and economic levels will differ in rating the importance of individual terms and rank ordering the terms as follows:

a. Female students will differ from male students in ratings of sex role values related to marriage and parenthood.

b. Female students will value characteristics of occupations that facilitate marriage and family roles more highly than males (e.g., leisure, security, early entry).

c. Hypotheses a & b will obtain for white and hispanic subgroups, but fewer differences may be found between black females and black males.

d. When subgroups are classified by economic level, low and middle, the size of the differences between females and males will be less for middle economic level students and greatest for lower economic level females and males.

This objective examined the influence of subgroup membership, part of the "setting" imposed on choices related to career decision-making of individuals.

C. Interview Schedule

This section describes the development of the individual interview schedule used as the main data collection instrument and the main sections of the interview schedule. During the first year of the project a pilot study was carried out to obtain student responses to the existing occupational values and to pilot versions of the marriage and parenthood values. The marriage and parenthood values were developed through a variety of sources: a literature search including the terms values and sex roles; readings in the areas of motherhood, marriage and family; trial of preliminary terms in an interview format with individual students and in a paper-and-pencil format with a sample of 40 11th graders; revisions and new tryouts; and the use of Kelley's (1955) Role Construct Repertory Test to elicit constructs used to describe similarities and differences between individuals who were husbands and wives or mothers and fathers (this technique worked well with psychologists, but not with non-psychologists). The marriage and parenthood terms used in the final pilot study of the first year of the project are presented in Appendix 1.

The participants in the final pilot study were selected to represent three ethnic groups (black, Hispanic, and white), both sexes, and two socioeconomic levels. There were 16 students in each of six cells (sex by ethnic), with the exception of 18 white males, for a total of 98 students. All students were individually interviewed and were paid $3.00 for completing the interview. These students were in an urban high school; all were 11th-grade students. About 80% had been born in New York and 94% had spent most of their lives in New York. Thirty percent of the students used Spanish in their homes.

The results of the pilot study showed that the values elicited different responses across students, and most of the value terms met the criterion that they were not consistently ranked at the top or bottom, and, in fact, showed a distribution of responses across the possible ranks for each value. The marriage and parenthood terms were revised on the basis of the pilot study; student discussions of the values indicated some descriptions had more than one concept in them to which students responded.

Although the occupational, marriage, and parenthood values were the main focus of the interview, the interview was structured to include several main sections. The first section was concerned with demographic or background variables describing the student. This included questions on age, place of birth, mother's place of birth, where they have spent most of their lives, use of other languages, ethnic group, and religion. Several other questions also asked for information about whether they lived with their parents or apart, the type of program in which they were enrolled at school, and whether they had any prior work experience. Another set of questions was concerned with parents' occupational history. Questions were included on both father's and mother's occupation and education and the mother's work pattern, i.e., in relation to marriage and children.

The next set of questions was concerned with the student's educational and occupational plans and expectations. Student achievement and level of education aspiration were included, as well as the type of work students had considered doing after their graduation. Plans for children and the effect of a family on plans for work were also ascertained. Another group of questions asked students to identify the persons they talked to about their educational, occupational, marriage, and parenthood plans.

These sections of the questionnaires were followed by the occupational, marriage, and parenthood values. Students were asked to rank order and to rate the importance of each term within the respective value sets. A summary question following the values asked students to indicate the relative importance of work, marriage, children, and other parts of their lives by dividing a circle into parts to show the importance of each general area. Scales examining the general level of involvement and a job-child orientation were also given, one before the ratings of the values, and one after the value ratings.

Another section of the questionnaire presented time lines, showing ages from high school to age 40, and asking the student to indicate the times at which major events would occur, e.g., school, marriage, children, full time and part time work. The questionnaire concluded with a list of activities for families with children. Students were asked to rate who should be responsible for each activity as an indication of assignment of activities to females and males.

In summary, the interview was designed to tap a number of variables thought to be related to career decision making. In addition to basic variables which described the characteristics of the sample and relevant information on parent and student occupational history, the plans, values, and relative importance of various parts of the adult role were the subject of questions in the interview schedule. The complete interview schedule is presented in Appendix 2.

D. Definition of Major Variables

Socioeconomic status. Three occupational scales were employed in the classification of parent's socioeconomic background and student career aspirations. The occupations of the parents were coded on the Hamburger Revised Occupational Scale for Rating Socioeconomic Status (Hamburger, 1958) and on the census measure of Socioeconomic Status (Bureau of the Census, 1963). The students' occupational goals were coded on the census measure and on the two-way classification scheme developed by Roe (1956).

The Hamburger Occupational Rating Scale was the basis for the categorization of subjects into the low or middle socioeconomic status (SES) groups. The occupation rated highest, either the mother's or father's, was used to determine the classification. The Hamburger Scale is comprised of six occupational categories: professional, semiprofessional, business, clerical, manual, and protective and service. Occupations which are classified within each of these groupings are placed on a seven point (ordinal) scale of socioeconomic status. The socioeconomic status level which is assigned to an occupation is determined by economic as well as social prestige factors. A manual is provided in which the criteria are given for category classification and SES level ratings. The occupational title as well as the amount of educational training indicated is taken into consideration in the rating procedure. The dimensions of income, responsibility, behavior control, and particularly occupational prestige, differentiate between the occupations representative of each SES level within each of the six categories. For example, occupations within Category I (professional) range from doctoral, level 1 to lab technician at level 3; in Category VI (Protective and service), occupations range from police commissioner at level 1 to night watchman at level 7 (see Appendix 3).

For the purposes of the present investigation, students were classified as to socioeconomic status on the basis of the occupations which they reported for their parents or guardians. A student was designated as middle socioeconomic status when either parent or guardian was reported to be employed in an occupation classified at levels 1, 2, or 3 of the Hamburger Scale. When neither parent nor guardian met this criterion level, i.e., their occupations were rated at levels 4, 5, 6, or 7 on the Hamburger Scale, a student was assigned to the low socioeconomic status category. Exceptions to these SES classification criteria occurred in a few rare cases in which parents, though employed in lower occupational level jobs, were college educated. In these instances students were classified as middle class on the basis of their parents' educational rather than present occupational level (e.g., Cuban families who moved to the U.S., were in professional occupations in Cuba, but in other occupations in the U.S.).

Difficulties occurred in SES classification on the basis of the Hamburger Rating Scale, due to the fact that students seemed to know little about their parents' occupations. For the majority of occupations reported, the appropriate categories and SES levels were self-evident. There were, however, some problems in which either the appropriate category and/or the appropriate SES level within a category was difficult to determine. This occurred either when job descriptions overlapped two or more categories, e.g., manual and service, professional and business, clerical and service, or when information relevant to the selection of SES level (income, job responsibility, and authority) was not always available.

The parental occupations were rated on the Hamburger Scale by coders familiar with the criteria outlined in the rating manual. Individual case problems and inconsistencies between occupational codings were reviewed and discussed throughout the rating procedure. When the socioeconomic status of a student was assessed as ambiguous, he or she was dropped from the sample. This occurred in a small number of cases. The final sample was comprised of occupations representative of each of the six occupational categories. Occupations rated as middle socioeconomic status were predominantly derived from the professional, semiprofessional, business, and clerical categories, while the low SES occupations most frequently belonged to the clerical, manual, and protective and service categories. All six categories, however, were represented in both SES groups. The middle and low socioeconomic statuses were differentiated on the basis of the level ratings within category.

Parental occupations and students' career aspirations were coded on the socioeconomic status measures developed by the U.S. Bureau of the Census (Bureau of the Census, 1963). The Census measure of socioeconomic status is a multiple-item index incorporating occupational, educational and income data derived from the Census records. The socioeconomic status score assigned to an occupation is determined by the combined average levels of education and income reported for the occupation. The score indicates the position of the average person in a particular occupation as based upon the education and income distributions for that occupation in 1950. The prestige of an occupation is not taken into consideration in the coding procedure.

Occupations are classified into seven general occupational categories: professional and technical workers; managers, officials and proprietors; clerical and sales workers; craftsmen and foremen; operatives; service workers; and laborers. These groupings are further subdivided into 297 specific categories representing a total of 494 distinct occupational items.

The specificity of the Census items included within each occupational category facilitated the scoring procedure and permitted fine discriminations. Some of the coding difficulties enumerated with respect to the Hamburger Rating Scale were, however, applicable to the Census measure as well. Students' descriptions of their parents' employment were sometimes vague, and on occasion a job description would overlap two or more occupational categories. Since in the present study students' SES classifications were not determined on the basis of their parents' Census scores, the Census coding was not reviewed as extensively as the Hamburger Rating scores which represent broader categorizations.

A final check on the coding was carried out by listing all occupations for either or both parents for students within each of the twelve cells of the sample plan, along with the Hamburger and Bureau of Census codes. Two staff checked each occupational title for consistency of coding and coding errors, both within and between the middle and low SES groups. Discrepancies in coding for any one occupation were resolved and the same codes used across cells.

Roe's (1956) two-way classification of occupations was the third technique used to code occupations. Students were asked to specify the occupation in which they were most interested, as well as the occupation they actually expected to do. Each of these responses was coded on the Roe scale. The scale is comprised of eight occupational groups, which were developed according to their primary focus of activity: service, business contact, organization, technology, outdoors, science, general cultural, and arts and entertainment. Each of these primary focus groups is subdivided into six levels on the basis of responsibility, capacity and skill dimensions. The number, range and difficulty of the decisions required in an occupation determine the level at which it is coded. When responsibility is not commensurate with skill, responsibility is the determining factor for level classification. Roe (1956) provided a descriptive outline of the classification criteria for each occupational group at each responsibility level. (Occupations are given in Appendix 3.)

Coding the students' occupational interests and expectations on the Roe scale was accomplished with minimal difficulty. This is partially attributable to the generally unambiguous occupational titles the students provided in their responses. Also, the Roe classification schema seems to result in few intracoder inconsistencies, perhaps since the activity focus of the categories is more specific for occupations.

In summary, the SES of parents was coded by the Hamburger (1958) occupational scale, and the levels of the Hamburger scale were used to classify student SES as middle or low. Further information on parents' occupations was given by the Bureau of the Census categories and scores (1963). And, the scope of student occupational aspirations was indicated by using Roe's (1956) focus of activity groups and level of responsibility scale. As noted, a majority of occupations were readily coded. However, a sizeable number of students know very little about what their parents do at work.

Assessing ethnic categories. The study design called for interviewing students in three ethnic groups: black, Hispanic, and white. In the interview a preliminary classification was made by skin color (white/nonwhite) and last name (Hispanic). Additional criteria used to determine Hispanic classification were: a) if the student had been born in a Spanish-speaking location; b) if the mother had been born in a Spanish-speaking location; and/or c) if Spanish was spoken in the home. If the interviewer was unsure about any category, the student was asked the following question: "What ethnic group do you consider yourself a member of?"

Borderline cases involved primarily the Hispanic classifications, and included children of mixed marriages especially where no Spanish was spoken at home. The Hispanic category includes students whose skin color may be white or black. The primary criterion was the cultural (ethnic) group to which the student belonged by virtue of language and/or self-identification.

Values. Three sets of values were used in the study: occupational, marriage, and parenthood. The occupational values from SIGI (Katz, 1973) are presented in Table 3-1. The values for marriage and parenthood used in the main study are given in Tables 3-2 and 3-3.

Definitions in all three value sets are simplified from the earlier definitions used in SIGI and in the pilot study. Each value term was presented to a student on a 3 x 5 card so that the cards could be sorted and values could be rank ordered within each set of values. The general directions were:

> These cards describe values or satisfactions that people might consider important in choosing an occupation (deciding to get married, deciding to become a parent). Read through them and think about which ones are important to you. Tell me if you find anything that you don't understand.

The cards were placed in a standard order each time a set of values was administered (left to right, starting with the value given the letter A, and so on). The student was free to pick up and arrange the cards during the ranking task. The second task was to rate each value term (within a set) according to its importance to the students. The scale ranged from 0, not important at all, to 8, greatly important. Each student was asked, for example,

Table 3-1

Occupational Values Revised for Use with Eleventh Grade Students[1]

High Income
An Occupational Value

Some money is important to everyone. But how important are the extras? People have different ideas about how much income is "high." So HIGH INCOME is not a specific amount. It means more than enough to live on. It means having extra money. You can buy things you don't need.

A

Prestige
An Occupational Value

If people respect you, look up to you, listen to your opinions, or ask for your help in community affairs, you are a person with PRESTIGE. Of course, PRESTIGE can be gained in several ways. But in present-day America, occupation is usually the key to PRESTIGE. Rightly or wrongly, we respect some occupations more than others.

B

Independence
An Occupational Value

Some occupations give you more freedom than others to make your own decisions. In some jobs you work without supervision or direction from others. Free-lance artists or writers may work without supervision. On the other hand, soldiers or people in big business organizations may not be able to make many decisions.

C

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[1] Katz (1973)

Table 3-1 (cont'd.)

Helping Others
An Occupational Value

Most people are willing to help others; they like to do things for their friends and neighbors. But THIS DOES NOT COUNT HERE. The question here is, Do you want HELPING OTHERS to be a main part of your work? How much do you want to help people as part of your job?

D

Security
An Occupational Value

In the most SECURE occupations, you will not be afraid of losing your job. You do not have to worry about being fired or being replaced by a machine. You can count on your paycheck on Friday, and you know in advance how much it will be.

E

Variety
An Occupational Value

Occupations with the greatest variety have many different kinds of activities and problems, many changes and new people to meet. VARIETY is the opposite of doing the same thing over and over. If you like VARIETY, you probably like new things and surprises, and like new problems, places, and people.

F

Leadership
An Occupational Value

Do you want to lead others, tell them what to do, be responsible for their work? People who want LEADERSHIP usually like to control things. If they are mature, they know that RESPONSIBILITY goes with LEADERSHIP. They are willing to accept the blame when things go wrong, even though it was not their fault.

G

Table 3-1 (cont'd.)

Work in Your Main Field of Interest

An Occupational Value

Some people have only ONE MAIN FIELD OF INTEREST, for example, Science, Art, Verbal, Mechanics, Personal Contact, or Administration. Others are interested in more than one field. Most people want to have interesting work, BUT THIS DOES NOT COUNT HERE. Are there several fields in which you could find work that is satisfying to you? Or, how important is it to you that your work is in your one main field of interest?

H

Leisure

An Occupational Value

How important is the amount of time your occupation will allow you to spend away from work? LEISURE may include short hours, long vacations, or the chance to choose your own time off. To give a high weight to LEISURE is like saying, "The satisfactions I get off the job are so important to me that work must not interfere with them."

I

Early Entry

An Occupational Value

How important is it to you to start working right away? You can start some jobs with very little education or training. Others need years of education. If EARLY ENTRY is important to you, you do not want more education or training. If you are willing to spend time, effort and money for more education, EARLY ENTRY is not important to you.

J

60

Table 3-2

Marriage Values Defined for Use with Eleventh Grade Students

Financial Security

A Marriage Value

Marriage can give you financial security.

If you marry someone who has a good income, you can have many things. A good income also lets you do many things that you couldn't manage on your own.

A

Emotional Support

A Marriage Value

Marriage can give you emotional support.

Married people can support each other emotionally during rough times. They can trust each other and share personal problems.

B

Helpmate

A Marriage Value

Marriage can give you a helpmate.

There are many chores in one's life, for example, cooking, paying bills, laundry, taking care of the car. With someone to help you, you can share these household responsibilities.

C

A Close Physical Relationship

A Marriage Value

Marriage can give you a close physical relationship.

When people are married, they can have a close physical relationship with someone they care for very much.

D

Table 3-2(cont'd.)

Prestige
A Marriage Value

Marriage can give you prestige.

When people get married, they can feel proud of their partners. And they can feel successful because of their partner's successes.

E

A Normal Life
A Marriage Value

Marriage can give you a normal life.

When you reach a certain age, family and friends expect you to get married. When all your friends are getting married, marriage seems like the natural thing to do.

F

A Permanent Companion
A Marriage Value

Marriage can give you a permanent companion.

When you get married you can have a permanent friend and companion. You can go places and do things together.

G

Children
A Marriage Value

Marriage can give you children.

When people get married, they can begin a family. They can provide a home for children.

H

Table 3-2 (cont'd.)

Your Own Home
A Marriage Value

Marriage can give you your own home.

When you get married you can set up your own place to live, and run it the way you like. You can be your own boss.

I

Someone to Rely On
A Marriage Value

Marriage can give you someone to rely on.

When you are married you can feel safe. There is someone who can protect and take care of you.

J

A Feeling of Leadership
A Marriage Value

Marriage can give you a feeling of leadership.

When you are married you can be responsible for your partner. You have the chance to guide someone else.

K

Table 3-3

Parenthood Values Defined for Use with Eleventh Grade Students

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Accomplishment

A Parenthood Value

Being a parent can give you a sense of accomplishment.

In raising a child you take on responsibilities and meet many challenges. When you see that you have done a good job it gives you a sense of accomplishment.

A

A Sense of Pride

A Parenthood Value

Being a parent can give you a sense of pride.

You can feel pride through your children's achievement. Your children can be successful in life.

B

Variety

A Parenthood Value

Being a parent can give you variety.

You can watch your children grow and change. There is always something new and different in life with children.

C

Friendship

A Parenthood Value

Being a parent can give you friendship.

Children can be close friends to their parents. You will be able to talk to your daughter or son as a friend. You can go places and do things with your children.

D

Table 3-3 (cont'd.)

Respect of Others

A Parenthood Value

Being a parent can give you the respect of others.

Your family and friends expect you to have children. Becoming a parent earns you their respect.

E

A Stable Marriage

A Parenthood Value

Being a parent can give you a stable marriage.

?

Children can make their parents feel closer. Marriages with children can be stronger and more permanent marriages.

F

A Chance to Express Love

A Parenthood Value

Being a parent can give you a chance to express love.

You can hug and cuddle young children. Caring for a child who needs you lets you show your feelings of love.

G

Confidence as a Man or Woman

A Parenthood Value

Being a parent can give you confidence as a man or woman.

Your own child can give you a feeling that you are a real woman or man. Having a child can be basic to your sense of womanhood or manhood.

H

Table 3-3 (cont'd.)

Joy
A Parenthood Value

Being a parent can give you joy.

You can have laughter and joy in your home. A home with children can be sunny and happy.

I

Future Security
A Parenthood Value

Being a parent can give you future security.

When you get old, you can turn to your children for help. Children will love you and care what happens to you.

J

A Tie to the Future
A Parenthood Value

Being a parent can give you a tie to the future.

Parenthood means you can leave something of yourself to the future. Having something of yourself in your children and grandchildren is a kind of immortality.

K

A Sense of Importance
A Parenthood Value

Being a parent can give you a sense of importance.

When you have children you become an important person. What you say has more influence.

L

> Here is the card about high income. Decide how important this is to you. Choose the number from the scale that best describes the way you feel. Do you have any questions? Do the same for all the values.

In summary, students were asked to both rank order and assign a weight to each value term within the three sets of values--occupation, marriage, and parenthood. If the procedures used with the occupational values in SIGI (Katz, 1973) are followed, further work with the values should involve the development of simulated decision settings to clarify the relationship among values highly ranked and rated within each set for an individual student. Also, a logical extension would be to examine simulated settings in which students attempt to determine the relative order of importance of values across the three sets. These activities would assist students in further clarifying the importance of different values, but would not provide a right or wrong view of any particular combination or weights of values. A first approximation of this comparison of values across the three sets was given in a question on the interview schedule (question 49, interview schedule, Appendix 2). The student was given a circle and asked to examine how important the areas of Work, Marriage, Children, and Other are when they are compared with each other. The task was to pretend that a circle represented the student's life, and the circle was to be divided like pieces of a pie, to show how important each area of Marriage, Work, Children, and Other would be in the student's life.

Level of Involvement and Job-Child Scales. To examine the relative importance of two of these areas, Work and Children, two scales were included in the interview schedule. These scales were developed by Lolagene C. Coombs, of the Population Studies Center of the University of Michigan, to measure commitment to work in the job-family trade-off context (Coombs, in press). She dealt with the problem of examining competing attitudes simultaneously by the method of conjoint measurement. Preference data for the components of desire for a job or career and desire for children were collected by asking a sample of students at the University of Michigan to rank order a set of 16 cards. Each card presented one combination (e.g., 0 children, full time job) from the 16 possible combinations of 0, 1, 2, or 3 children and 0, 1/2, 3/4, or full time job. (Coombs felt these were reasonable ranges for the U.S. culture.)

Women in the sample were asked to respond in terms of their own preferences. Men in the sample were asked about what they would like their wives--present or future--to do. The setting for the choice was a statement that asked students to assume that the children were under 10 years of age, and that the job was for pay outside the home. The data from these preference orderings were examined to determine how students put together the two issues, how many children and how much of a job commitment. An overall preference ordering is obtained in these trade-off situations.

Coombs (in press) has presented a detailed description of the various models tested for a fit to the preference data. The model providing the best fit hypothesized that respondents were concerned with and had a preference regarding their level of commitment to the whole area of having a job and raising children, and they also had preferences about the balance or emphasis on one or the other of these activities. This model yielded two dimensions, a preference for a total level of involvement in the child and job domain, and a preference on a job versus child orientation. Once the appropriate measurement model was obtained, the scales measuring these two dimensions were constructed.

When the preference orders are scaled by the measurement model used by Coombs, the data yield a 7-point scale on each of two dimensions, one called the Total Involvement Level Scale and the other called the Job vs. Child Orientation Scale. The scales range from a preference for least to most involvement in the total job and child domain, and from greatest preference for a job to greatest preference for children in the job vs. child orientation domain.

Table 3-4 presents the four choices which make up the Involvement Level Scale and the four choices which make up the Job-Child Orientation Scale. The respondent's task, for each scale, was to select one of the four alternatives, under the situation described above where there are children under 10 years of age and the job is for pay outside the home. After the initial choice the interviewer presented an additional series of cards as indicated in the interview schedule in Appendix 2 (questions 41 and 48) to obtain the respondent's complete preference order.

Table 3-4

Scales for Job and Children Trade-offs[1]

Involvement Level Scale	Job-Child Orientation Scale
(A) 0 children, no job	(A) No children, full time job
(B) 1 child, 1/2 time job	(B) 1 child, 3/4 time job
(C) 2 children, 3/4 time job	(C) 2 children, 1/2 time job
(D) 3 children, full time job	(D) 3 children, no job

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[1] Coombs (in press)

Coombs has discussed the interpretation of the scales in several ways. In the University of Michigan sample, for example, the women in the sample were more job oriented than the job orientation men preferred for their wives. Coombs pointed out that such subgroup differences can be examined for the two scales. Also, since the two measures are reasonably independent of each other in the sense that the level of preference for one is not contingent on the level of preference of the other, the question of the relative strength of the two factors may be examined for individuals. There is a considerable range of Job-Child Orientation scale values for each Involvement Level (IL) scale level. For example, if the preference for the level of one variable persists while the level of the other factor changes, then the former may be said to dominate the latter. Thus, it is possible to examine whether the IL or the JC scale is more likely to dominate for particular subgroups in a study.

Coombs recommended an oral format to obtain data for her scales, with responses recorded by the interviewer during the questioning in order to reduce the likelihood of error. With scale values precoded on the questionnaire another source of error is eliminated. Both recommendations were followed in the administration of the two scales in the present study.

In summary, the Coombs scales of Involvement Level and Job-Child orientation were selected for use in the study since they provide another measurement tool to examine the relative values of students in these areas. In addition to providing descriptive information and examining the relationship of the scales to other variables in the study, the scales appear to have potential use with individuals as part of career decision making.

Coombs suggested that in addition to descriptive and predictive uses of the measure of work commitment in the family trade-off context, the scales may be useful for diagnostic purposes in counseling, particularly for women returning to further education.[1] The scales fit within the general approach emphasized in this study, which is to expand the adult roles that are considered within career decision making.

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[1] Coombs noted that the trade-offs may be very real and self-knowledge of where one stands vis-a-vis others may be valuable. In order to pursue goals realistically the two scales may assist individuals to understand their values. She gave an example from the Michigan sample where less than a third of the respondents who gave a first preference for two children and a full time job (a heavy load) were in the job end of the JC scale, and 60% preferred only a moderate total involvement level (IL 4-5). Another way of using the scales would be to look at the husband's preferences as well as a returning wife's preferences.

E. Sample

Although schools and students were selected to represent the twelve cells in the sample design, the 600 students in the study are a volunteer sample. Permission to contact schools in the urban New York City area was obtained from the administrative offices of the Board of Education for the public high schools and from the various Catholic diocesan offices for four of the boroughs in New York City. These offices also provided information on the schools most likely to have students representing the various categories in the sample design. When permission had been obtained from the administrative offices, principals were contacted at each individual school and, typically, the guidance counselor as well. Both administrators and principals were told of the general design of the study and the need for assistance in identifying students who might meet the sample requirements.

Four public high schools in the Bronx and Queens participated in the study. One private high school in Manhattan agreed to participate and twenty-four Catholic high schools in Manhattan, Bronx, Brooklyn, and Queens also participated. Table 3-5 presents the number of schools and students in each sample cell by type of school, Catholic or public. Only seven students were interviewed at the private school, six middle SES girls and one low SES girl.

Table 3-5

Number of Schools and Students by Type of School for Each Sample Cell[1]

Type of School and Student Group

SES	White		Black		Hispanic	
Middle	Catholic	Public	Catholic	Public	Catholic	Public
Female	1(1)	4(50)	7(16)	4(35)	17(45)	3(7)
Male	2(8)	4(47)	8(26)	3(25)	8(37)	3(13)
Low						
Female	-	4(69)	1(8)	4(63)	5(23)	4(77)
Male	2(12)	4(52)	4(8)	4(54)	6(38)	4(37)

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[1] ( ) number of students: Number interviewed per cell > 50; sample reduced to 50 per cell for analysis.

For most of the cells more than 50 students were interviewed. In order to have a uniform 50 cases per cell, the cells were reduced using the following criteria:

1. Lack of ambiguity regarding SES classification;
2. Lack of ambiguity regarding ethnic classification;
3. Appropriate parent educational level (i.e., no low SES parents with college degrees);
4. Completeness of interview schedule;
5. Standard family living arrangement (i.e., at least one parent living at home);
6. Unmarried and/or not a mother (5 students were eliminated on this basis).

These criteria were applied first. If more than 50 cases remained in a cell, random selection was used to reduce the cell size to 50.

As is evident from Table 3-5, the students who were most difficult to locate were black and Hispanic middle SES students. Student SES cannot be readily identified in public school records, nor is parental occupation or level of education typically known by school staff in the large public high schools. Thus, in order to complete the desired sample without conducting many interviews that would not be used in the data analysis, a number of sources were consulted to locate the schools most likely to have middle SES black and Hispanic students. These sources included advisory boards for the Center for Advanced Study in Education (which had representatives from these communities). Similarly, borough boards of education and administrators in both the public and diocesan offices were re-contacted. As a result of the consultations, further effort to complete these cells of the sample concentrated on identifying Catholic high schools. Since the Catholic high schools are typically much smaller in size, local guidance counselors knew students personally and could help identify students for interviewing.

Whereas initially any student who volunteered for the project was interviewed, the last stages of the data collection were focused on identifying students likely to meet the sample requirements. Since the student's actual classification was not known until the interview was conducted, it was necessary to follow these procedures of going to smaller schools where counselors knew students.

F. Data Collection

Data were collected from students by means of an individual interview. The interview schedule is presented in Appendix 2. The procedures within individual schools varied to some degree in method of contacting students. However, a typical procedure for the public schools included an initial contact with the principal, a meeting with the principal, other administrators, and the guidance staff. One guidance counselor would be appointed to work with the project. Letters of permission for interviewing, scheduling arrangements, and procedures to pay students for interviewing, if in accord with the school regulations, were worked out with the guidance counselor. Students were paid a stipend of \$3.00 as an incentive to participate and encouragement to view the interview in a responsible manner. A sample permission slip and receipt form are presented in Appendix 4. The consent form was prepared in Spanish and English so that parents agreeing to student participation could read either version.

Arrangements for interviewing also included estimating the number of students who would be available on particular days, arrangements for scheduling them (usually requiring two class periods), and room assignments for interviewing. Almost all interviews were conducted in individual rooms, with a frequent location being small rooms in a school library. The interviewers would be located in the designated rooms, students would come to the room, the interview would be conducted, and, if the student stipend was being given out, the interview was concluded with an envelope containing the \$3.00 for the student. The student then signed the receipt form as a record of payment. Length of interviews varied from forty minutes to an hour and ten minutes.

The beginning of the interview assured students of confidentiality of response and their privilege of not responding to any particular item. This latter option was rarely chosen, as the interview questions had been piloted with students, reviewed by school staff, as well as the project staff, and were concerned mainly with student perceptions and responses to questions about the values and sex role variables.

The interviewers for the project were either graduate students in doctoral programs in psychology or education, or graduates with an M.A. degree in education, with the exception of one interviewer who had a B.A. degree. Over the eight months of data collection, there were eight female interviewers and three male interviewers. There was no attempt to match or randomize sex of the interviewer and sex of the student. The limited number of male interviewers made such a procedure impossible. The interviewers had to be available on a variable time schedule according to when schools could be contacted, students located for participation, and consent forms obtained. The sample design imposed restrictions on the data collection, as noted above, with accompanying interruptions in scheduling for interviewers.[1] There were, therefore, more female interviewers available who had the flexibility required in the amount and type of part time work the interviewing constituted.

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[1] Also initially the data collection proceeded rapidly and the project was on schedule. However, the difficulty in locating black and Hispanic middle SES students extended the original estimate of data collection time by approximately four months.

Training interviewers. Interviewers were trained by the following procedures. First, the interviewer was administered the interview by one of the three permanent project staff. Then the trainee administered the interview to the project staff. In addition, the interviewers had practice administrations with available students, not in the sample, and these interview protocols were reviewed by the project staff. Also, the trainee was observed administering at least one interview as part of the regular data collection procedure.

Interviewers were also given a set of brief directions intended to serve as reminders on particular points during the interview. These included the following directions:

Interview Directions

1. Always try to follow-up if S says "I don't know," ask what do you think it is, or what do you think will happen, etc.

2. If response doesn't fit in space, use back of preceding page and record question number. Write as much detail as possible on all open-ended questions.

3. On ranking tasks, set cards in front of student in alphabetical order, with the 'A' starting on student's left. After recording responses, point to top (most important) and bottom (least important) to check student understanding: This is the most important (work pattern or value) and this is the least important.

4. On all ranking tasks: After rank ordering cards, rearrange into order (A, B, etc.) for ratings.

5. If on some questions a student queries whether it is what they think they will do vs. some ideal, repeat questions and say "it is what you think your decisions will be."

6. Whenever there is a question about marriage, you can say "or permanent relationship" if student queries.

7. On p. 29, What do you expect to do after high school?, remember to circle all years a student will be in college; for example, do not point out inconsistencies or "unrealistic" responses to students. That is, no "coaching" of responses except to make sure student understands question.

8. Question 50. Use a blank sheet or card to help student mark X on right line.

The interview training was successful on the major tasks of the interview as indicated by the complete data available for the rankings of the values and other structured tasks. However, the responses to particular open-ended questions, especially the role model question, varied according to the interviewer. Students' initial responses to the role model question tended to be, "I don't have any." In this event, interviewers varied somewhat in their ability to probe and ask further questions to elicit adult role models.

CHAPTER III

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CHAPTER IV

FINDINGS: PART I

Demographic Characteristics and Plans

This chapter presents information about the 11th-grade students in the sample on a wide variety of variables. Characteristics such as age, sex, and place of birth are described. Parental level of education and type of occupation are included, as well as the students' educational and occupational aspirations and plans. The last section includes a series of questions about work decisions that students expect to make for themselves and similar questions about how they expect their spouse to respond. This section also includes an analysis of categories coded for open ended questions about role models, and the persons to whom students talk about their educational, marriage, and parenthood plans.

A. Demographic Variables

The interview began with a series of questions about the student's status with respect to age, family religion, place of birth and so on. The questions and response data are presented below. In addition to the data describing the total sample of 600 11th graders, typically the data were examined for differences among the main groups which constituted the sample design: sex, ethnic and SES groups.

1. How old are you?

A majority of students were 16 years of age (65%) or 17 (21%). A three-way ANOVA showed no significant differences in age for the sex or socioeconomic factors. There was a significant F for the ethnic factor ($F_{2,588} = 7.84$, $pr>F=.0004$). Examination of the cell frequencies for that factor shows that fewer Hispanic than white students were less than 16 years old in this sample. That is, the Hispanic students tended to be older than the white students (mean ages for the three groups, where 1 = less than 16 years, 2 = 16, 3 = 17, 4 = 18 and 5 = 19+, were white = 1.990, black = 2.130, and Hispanic = 2.235, n = 200 each group). Scheffe's test shows the only significant difference is between the white and Hispanic groups.

3. Where were you born (state or country)?[1]

Eighty percent of all students in the sample were born in New York state. The most frequent places of birth for students in each sample cell are given in Table 4-1. The second most frequent place of birth was Puerto Rico, Cuba or another Spanish country. About 12 percent of the black students were born in one of the southern states.

Table 4-1

Most Frequent Place of Birth for Students in the 12 Sample Cells

SES	White	Black		Hispanic	
	N.Y. State	N.Y. State	Southern States	N.Y. State	Puerto Rico/ Spanish Country
Middle					
Female	46	39	4	33	16
Male	45	38	6	34	16
Low					
Female	49	42	5	28	21
Male	46	42	8	39	11
Total	186	161	23	134	64

4. Where was your mother born?

The largest percentage of mothers was born in New York state (39%). The most frequent places of birth for mothers of students in each sample cell are given in Table 4-2. The second largest percentage of mothers was born in Puerto Rico, Cuba or another Spanish country (31%). A comparison of Tables 4-1 and 4-2 shows that nearly three times as many mothers were born in Puerto Rico or the Spanish countries (179 mothers and 64 children). Similarly, more mothers of black students were born in southern states than were their children (87 mothers and 23 children).

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[1] Question numbers are the same as in the interview schedule, to facilitate cross references. This means some question numbers are omitted and may be out of sequence.

Table 4-2

Frequency of Place of Birth for Mothers of Students in Each Sample Cell

SES	White	Black		Hispanic	
Middle	N.Y. State	N.Y. State	Southern States	N.Y. State	Puerto Rico/ Spanish Country
Female	36	18	16	7	39
Male	38	24	15	5	43
Low					
Female	41	17	27	1	49
Male	35	11	29	2	48
	150	70	87	15	179

5. Where have you spent most of your life?

Of the 600 students participating in the study, 562 (94%) had spent most of their lives in New York state. This total is an increase of 13.5% over the number of students born in New York state. The increase is accounted for by 9 white students, 25 black students, and 47 Hispanic students. Examining the data by ethnic group shows that 97.5% of the white students, 93% of the black students and 90.5% of the Hispanic students say they have spent most of their lives in New York state.

6. Do you use another language at home?

Almost 62% of the students (369) answered no to this question. The largest percentage of yes responses were from those students whose families used Spanish at home--201 (33.5%) students. Of the 200 Hispanic students, 195 (97%) speak Spanish at home.

9. What is your family's religion?

The overall frequencies for family religion were 356 (59.3%) Catholic, 131 (21.8%) Protestant, 64 (10.7%) Jewish and 49 (8.2%) reported as none or "other." The distribution by sample cell is shown in Table 4-3. All but 15 of the Hispanic students reported their family religion as Catholic. Slightly over half (53.5%) of the white students and 67 (32%) of the black students reported their family religion as Catholic. Referring back to Table 3-5, it can be seen that the white students interviewed were primarily in the public schools and the large numbers of middle SES black students interviewed in the Catholic schools reflect a current reality of schools in New York City.[1]

Table 4-3

Family Religion as Reported by Students in Each Sample Cell[1]

	White[2]			Black[3]		Hispanic[4]	
SES	Catholic	Protestant	Jewish	Catholic	Protestant	Catholic	Protestant
Middle							
Female	8	8	30	14	22	49	1
Male	19	4	21	28	17	47	2
Low							
Female	35	4	9	8	34	45	5
Male	45	1	3	14	31	44	2
	107	17	63	64	104	185	10

[1] Total N each sample cell = 50

[2] Two white students reported no religion and 11 reported "other."

[3] Six black students reported no religion, 1 reported Jewish, and 25 reported "other."

[4] One Hispanic student reported no religion and 4 reported "other."

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[1] Dena Kleiman reported on John Jay High School in New York (New York Times, Wednesday, May 9, 1979) that although the neighborhood has many middle class families, most of them send their children to parochial and other private schools. Students in the city schools are predominantly poor or lower middle class. The ethnic enrollment of the city schools are 21.5% black, 45% Hispanic and 33.5% "other."

10. Do you live with your parents?

Almost all students live either with one or both parents (97.5%). Only fifteen students answered that they did not live with either one or both of their parents (by ethnic group, 9 Hispanic, 5 black and 2 white students; by SES, 10 of the 19 were in the low SES subgroup).

19. How many children are there altogether in your family?

Responses to this question were coded from 1 to 9+ children. The mean and standard deviation for the total sample of 600 were 3.27 and 1.67, respectively. A three-way ANOVA showed two significant F values--for ethnic groups ($F_{2,584}=6.41$, $pr > F=.002$), and for SES ($F_{1,584}=39.98$, $pr > F=.0001$). Examining the ethnic group means by Scheffe's test shows that blacks had larger families than did either the white or Hispanic groups. The low SES group had larger families than did the middle SES groups. These means and standard deviations are shown in Table 4-4. The mean number of children in black families for students in the study was 3.53, compared with 3.32 for Hispanic families and 2.96 for white families.

Table 4-4

Mean Number of Children in Families of Ethnic and SES Subgroups

	Ethnic Group			SES Group	
	White	Black	Hispanic	Middle	Low
Mean	2.96	3.53	3.32	2.85	3.68
Standard Deviation	1.33	1.96	1.63	1.44	1.78

23. What program are you enrolled in at school?

Somewhat over half of the students (56.8%) were enrolled in the college preparatory/academic high school program. Another 25% (150 students) reported that they were in the general program in their school, and the next largest percentage of students were in the commercial or business program (6.3%). Table 4-5 shows the frequencies of enrollments in the college preparatory programs for the 12 sample cells. The main differences in the percentages are that more middle than low SES students are in the college preparatory program (70% and

44%, respectively) and that somewhat more of the white students reported being in college preparatory programs (65% compared to 53.3% for black students and 52% for Hispanic students). There was a small difference in the frequencies of females and males enrolled in the college preparatory program--175 females (58.3%) and 166 males (55.3%).

Table 4-5

Numbers of Students Enrolled in College Preparatory Programs

SES	White	Black	Hispanic
Middle			
Female	34	38	40
Male	25	36	37
Low			
Female	23	17	23
Male	22	16	30
Total	130	107	104
	(65%)[1]	(53.5%)	(52%)

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[1] Numbers in ( ) are percents of total group enrolled in this program.

Table 4-6 presents the numbers of students enrolled in the general and commercial programs for the 12 cells in the sample. In the general program, there were more black, low SES and male students among the 150 students. The 38 students in the commercial or business programs were, for the most part, white, low SES, and female (31 of the 38 were female).

24. Have you ever worked--for pay (not chores in your home)?

This question asked whether students had the experience of paid work outside their home. Seventy percent of the 600 11th-grade students had worked for pay. The categories for this question included full-time work (.5%), part-time work (17.8%), only summer full time (21.5%), only summer part time (14.8%), and summer and part time (15%). Almost a third of the sample (30.2%) had never worked. When the full time categories were combined, 132 or 22% were or had been employed full time, and 286 or 48% part time. Table 4-7 shows the frequencies for students who had worked by ethnic group, SES and sex. The data in Table 4-7 may be summarized by noting that more blacks and more low SES students had worked full time. The part time data show larger frequencies for whites, low SES and males. Combining the full-time and part-time work categories, more low than middle SES group students had work experience and more males than females. The work experience varied by ethnic group also: 70% of the white group had work experience, 77% of the black group, and 56.5% of the Hispanic group. Another way of examining these data is to look at the group of students who have no work experience. Table 4-8 shows the frequencies for groups of students with no work experience. A larger number of Hispanic students, middle SES students and female students had never worked when compared with the other subgroups.

Table 4-6

Numbers of Students Enrolled in the General and Commercial Programs

	White		Black		Hispanic	
SES	General	Commercial	General	Commercial	General	Commercial
Middle						
Female	11	1	7	1	1	4
Male	15	1	9	1	8	-
Low						
Female	10	13	19	5	10	7
Male	20	2	26	3	14	-
Total	56	17	61	10	33	11

Table 4-7

Numbers of Students Who had Worked Full Time or Part Time for All Sample Cells

	White		Black		Hispanic		Total
SES	FT	PT	FT	PT	FT	PT	
Middle	12	60	30	35	13	40	194
Low	13	56	37	48	23	47	224
Total	25	116	71	83	36	87	418
Sex							
Female	16	43	36	33	17	39	184
Male	9	73	35	50	19	48	234
Total	25	116	71	83	36	77	418
% of Total Group	70%		77%		56.5%		

Table 4-8

Numbers of Students Who Had Never Worked for All Sample Cells

	White	Black	Hispanic	Total N	Total % of 300
SES					
Middle	28	31	47	106	35%
Low	31	14	30	75	25%
Sex					
Female	41	30	44	115	38%
Male	18	15	33	66	22%
N and (%) of 200	59(30%)	45(22%)	77(38%)		

25. What type of full-time/part-time work?

Students' responses to the question of what type of work they had done were coded into the Roe (1956) categories. Each of the types of work experience, full time or part time was coded separately; since the students may have worked only full time or only part time, the overall frequencies for number missing or indicating no work experience is higher than in question 24 (above).

Each of the eight Roe categories was used at least once. Tables 4-9 and 4-10 present the frequencies and percentages of the main student groups in the Roe categories for full time or part time work experience, respectively. For those students reporting full-time work experience, the majority (68.2%) were in jobs classified in the Service category. There were some differences among groups: more boys than girls had work experience classified as Technology; and more black students had work experience in the Service category.

For part-time work experience about half the students reported jobs classified in the Service category and a third reported jobs classified in Organization. Again, more boys than girls reported jobs in Technology.

B. Education and Occupation of Parents

One group of questions was concerned with the level of education and type of occupation of both the mother and father. The series of questions that probed for descriptions of the father's and mother's work activities to facilitate coding are given in the interview schedule (Appendix 2). Occupations were coded using two classification schemes described in Chapter 2--the Bureau of the Census (1963) and the SES classification using a combination of education and occupation as described by Hamburger (1958). A detailed series of questions also were included to describe the mother's work pattern in relation to marriage and children.

The questions are presented in the order in which they appeared in the interview. First, there are descriptions of the father's occupation, and level of education, then the mother's level of education, work history, and occupation.

10.2 Does your father work?

The second half of question 10 asked about the father's work status. The majority of students had fathers who were employed full time (477 or 79.5%). Another 6% had deceased fathers and smaller percentages reported that their fathers were retired or disabled, or living apart from the family and it was not known whether he was working. Table 4-11 presents the percentages of students in each of the twelve sample cells responding yes, full-time work, to question 10. As shown in the totals for Table 4-11, black and Hispanic students tended to be less likely than white students to have a father employed full time.

Table 4-9

Numbers and Percents of Students with Full Time
Work Experience in Roe Categories

	Sex				Ethnic						SES				Total	
	Female		Male		White		Black		Hispanic		Middle		Low			
Roe Categories	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Service	65	73.0	72	64.3	38	61.3	69	80.2	30	56.6	63	70	74	66.7	137	68.2
Business Contact	-	-	3	2.7	2	3.2	1	1.2	-	-	-	-	3	2.7	3	1.5
Organization	15	16.9	14	12.5	11	17.7	8	9.3	10	18.9	15	16.7	14	12.6	29	14.4
Technology	4	4.5	16	14.3	9	14.5	2	2.3	9	17	6	6.7	14	12.6	20	9.95
Outdoor	2	2.25	2	1.8	-	-	4	4.7	-	-	2	2.2	2	1.8	4	2.0
Science	1	1.12	-	-	-	-	-	-	1	1.9	1	1.1	-	-	1	.5
General Culture	1	1.12	1	.9	-	-	1	1.2	1	1.9	1	1.1	1	.9	2	1.0
Arts and Entertainment	1	1.12	4	3.6	2	3.2	1	1.2	2	3.8	2	2.2	2	2.7	5	2.5
Total N's	89	100	112	100	62	100	86	100	53	100	90	100	111	100	201	100

Table 4-10

Numbers and Percents of Students with Part Time
Work Experience in Roe Categories

	Sex				Ethnic						SES				Total	
	Female		Male		White		Black		Hispanic		Middle		Low			
Roe Categories	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Service	62	53.9	83	48.5	55	47.4	48	57.8	42	48.3	63	46.3	82	54.7	145	50.7
Business Contact	3	2.6	5	2.9	6	5.2	-	-	2	2.3	5	3.7	3	2.0	8	2.8
Organization	43	37.4	62	36.3	40	34.5	27	32.5	38	43.7	57	41.9	48	32.0	105	36.7
Technology	3	2.6	15	8.8	11	9.5	3	3.6	4	4.6	4	2.9	14	9.3	18	6.3
Outdoor	-	-	2	1.2	1	.9	1	1.2	-	-	2	1.5	-	-	2	.7
Science	1	.9	1	.6	1	.9	1	1.2	-	-	1	.7	1	.7	2	.7
General Culture	3	2.6	1	.6	1	.9	2	2.4	1	1.2	2	1.5	2	1.3	4	1.4
Arts and Entertainment	-	-	2	1.2	1	.9	1	1.2	-	-	2	1.5	-	-	2	.7
Total N's	115	100	171	100	116	100	83	100	87	100	136	100	150	100	286	100

Table 4-11

Percentage of Students with Fathers Employed Full Time for 12 Sample Cells

	White		Black		Hispanic		Total	
SES	N	%	N	%	N	%	N	%
Middle								
Female	45	35.2[1]	37	28.9	46	35.9	128	26.8
Male	44	33.8	40	30.8	46	35.4	130	27.2
Low								
Female	41	38.3	33	30.8	33	30.8	107	22.4
Male	41	36.6	35	31.2	36	32.1	112	23.5
Total	171	35.8	145	30.4	161	33.8	477	100

[1] Percent of row total, e.g., 45/128

11. What is the main kind of work your father does?

This question was coded for a father, stepfather, or absent father, if the occupation was known. There were 42 students (7% of the sample) for whom data on the father's occupation either were not reported or could not be coded.

Table 4-12 shows the distribution of father's occupation for the 558 students who were able to provide occupational information. All Professional and Semiprofessional occupations are coded at level 3 and above on the level of occupation. In the total sample 13.6% of the fathers were employed in Professional occupations, 3.2% in Semiprofessional occupations and 19.2% in Business (commercial) occupations. Almost half of the fathers were in Manual and Protective & Service occupations (46.3%), and the remaining were in Clerical occupations (10.8%).

A three-way ANOVA on the level of occupation showed a significant main effect for SES, as expected ($F_{1,546} = 620.66$, pr > F = .0001) and also a main effect for ethnic group ($F_{2,546} = 11.83$, pr > F = .0001).

Table 4-12

Frequency and Percent of Fathers' Occupations Categorized by Type of Work and Level[1]

Category	1		2		3		4		5		6		7		Total	
Code/Meaning	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1. Professional	20	3.3	48	8.0	14	2.3	-	-	-	-	-	-	-	-	82	13.6
2. Semi-professional	-	-	4	0.7	15	2.5	-	-	-	-	-	-	-	-	19	3.2
3. Business	4	0.7	21	3.5	59	9.8	25	4.2	6	1.0	-	-	-	-	115	19.2
4. Clerical	-	-	9	1.5	27	4.5	9	1.5	11	1.8	9	1.5	-	-	65	10.8
5. Manual	-	-	-	-	1	0.2	18	3.0	58	9.7	48	8.0	1	0.2	126	21.1
6. Protective & Service	-	-	1	0.2	12	2.0	29	4.8	40	6.7	61	10.2	8	1.3	151	25.2
Total[2]	24	4.0	83	13.9	128	21.3	81	13.5	115	19.2	118	19.7	9	1.5	558	93.1

[1] Hamburger (1958) categories. [2] Not reported/missing N = 42, 7%

Table 4-13

Mean Level of Occupation for
SES and Ethnic Groups

	SES		Ethnic Group		
	Middle	Low	White	Black	Hispanic
N	290	268	196	176	186
$\bar{X}$	2.95	5.18	3.76	4.30	4.04

The means for these main effects are shown in Table 4-13. One interaction was just significant. SES by ethnic group had an $F_{2,546} = 2.96$, with $pr > F = .0526$. The means for the groups were:

Means (N)

SES	White	Black	Hispanic
Middle	2.58 (92)	3.38 (92)	2.92 (99)
Low	4.97 (97)	5.30 (84)	5.30 (87)

The mean level of occupation for fathers of the middle SES black students in the sample tended to be lower than those for white or Hispanic students, but these means were about the same for fathers of low SES students in all groups.

Table 4-14 presents the distributions and percents of fathers in the Hamburger type of work categories for the major student groups. There are few differences in the percentages of females and males when the occupational category of their fathers is examined. There are differences for the SES categories (as expected due to the use of categories as part of the coding for SES). More middle SES students' fathers are employed in professional, semiprofessional, business, and clerical occupations than are low SES student fathers. While there are no differences in percentages of white, black and Hispanic groups for the first two categories--professional and semiprofessional--there are some differences in the percentages of fathers in the remaining categories. White and Hispanic students in this sample tended to have more fathers in occupations classified

Table 4-14

Father's Type of Work for Major Student Groups: Hamburger Categories

	Group															
	Sex				Ethnic						SES					
	Female		Male		White		Black		Hispanic		Middle		Low		Total	
Category	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Professional	41	14.8	41	14.6	29	14.8	26	14.8	27	14.5	82	28.3	-	-	82	14.7
Semiprofessional	8	2.9	11	3.9	6	3.1	4	2.3	9	4.8	19	6.5	-	-	19	3.4
Business	58	20.9	57	20.3	52	26.5	23	13.1	40	21.5	89	30.7	26	9.7	115	20.6
Clerical	35	12.6	30	10.7	31	15.8	19	10.8	15	8.1	43	14.8	22	8.2	65	11.6
Manual	70	25.3	56	19.9	42	21.4	40	22.7	44	23.7	19	6.6	107	39.9	126	22.6
Protective & Service	65	23.5	86	30.6	36	18.4	64	36.3	51	27.4	38	13.1	113	42.2	151	27.1
Total	277	100%	281	100%	196	100%	176	100%	186	100%	290	100%	268	100%	558	100%

as Business. There were fewer black and Hispanic fathers with clerical occupations, and fewer whites in the Protective and Service occupation category. All three groups had the same percentages of fathers in the Manual occupations. The overall X^2_{10} for ethnic groups was 25.53 (p = .0031).

Father's occupations were also coded on the Bureau of the Census (1963) code. Table 4-15 presents the distributions of father's occupation for the total sample. Since the coding categories are not identical for the Hamburger and Census schemes, there are differences in the percentages reported for categories.

Using the Census categories, 17.2% of the fathers were placed in the Professional/Technical occupations, 21% were in Business occupations, and 9.4% were in Clerical & Sales. (Again, 7% of the students did not report an occupation for their fathers.) The percentages of fathers' occupations are also shown grouped on the Census scores. Forty percent of the fathers had occupations below a score of 69 on the Census scale, and 54% had scores from 70 to 99 (with 7% not classified).

Table 4-16 contains the frequencies and percents of fathers' occupations for each of the Census categories for the major student groups. The distributions of occupational categories differ by SES, as expected, and also by ethnic group (X^2_{12} = 33.26, p = .0009). There are fewer fathers of black students in the Business category and fewer fathers of white students in the Service worker category.

An ANOVA was computed for the Census scores for the main factors in the study design. Table 4-17 presents the means and standard deviations of the Census scores for sex, ethnic and SES groups. There were no differences on the sex factor, and significant differences on both the ethnic and SES factors. The SES means were 80.64 for the middle SES group and 52.78 for the low SES groups, as expected. For the ethnic groups, the fathers of white students in this sample were in occupations with higher Census scores, on the average, than the fathers of black and Hispanic students.

12/13. How much school did your father (mother) complete?

Students were asked how much education their parents (or stepparents or foster parents) had completed. Table 4-18 shows the frequency and percentage of education completed for eight codes and a ninth code, don't know, for both parents. The largest difference in percentages occurs for the category, Graduated from High School/High School Equivalency, where the percentage for mothers is 33.7% and for fathers is 26.7%.

Table 4-15

Frequency and Percent of Fathers' Occupations Categorized by Census Type of Work and Census Score

Census Categories	Census Scores 00-29 F	%	30-59 F	%	60-69 F	%	70-79 F	%	80-89 F	%	90-99 F	%	Total F	%
Professional/ technical	-	-	-	-	-	-	11	1.9	35	5.9	57	9.4	103	17.2
Business	-	-	-	-	-	-	54	9.1	42	7.1	29	4.8	125	21.0
Clerical & Sales	-	-	3	0.5	6	1.0	16	2.7	23	4.0	7	1.2	55	9.4
Crafts/Foremen	-	-	30	5.1	30	4.9	17	2.8	6	1.0	-	-	83	13.8
Operatives	-	-	54	9.1	34	5.7	-		-	-	-	-	88	14.8
Service Workers	21	3.5	28	4.8	14	2.4	24	4.0	-	-	-	-	87	14.7
Laborers	15	2.6	1	0.2	1	0.2	-	-	-	-	-	-	17	3.0
Total[1]	36	6.1	116	19.7	85	14.2	122	20.5	106	18.0	93	15.4	558	93.9

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[1] Not reported/missing N = 42, 7%

Table 4-16

Father's Type of Work for Major Student Groups: Census Categories

	Group															
	Sex				Ethnic						SES					
	Female		Male		White		Black		Hispanic		Middle		Low		Total	
Category	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Professional/ technical	50	18.0	53	18.9	37	18.9	29	16.5	37	19.9	103	35.5	-	-	103	17.2
Business	63	22.7	62	22.1	54	27.5	25	14.2	46	24.7	100	34.5	25	9.3	125	21.0
Clerical & Sales	29	10.5	26	9.2	26	13.3	20	11.4	9	4.8	31	10.7	24	9.0	55	9.4
Crafts/Foremen	47	17.0	36	12.8	30	15.3	25	14.2	28	15.1	16	5.5	67	25.0	83	13.8
Operatives	47	17.0	41	14.6	21	10.7	37	21.0	30	16.1	19	6.6	69	25.7	88	14.8
Service Workers	33	11.9	54	19.2	19	9.7	34	19.3	34	18.3	20	6.9	67	25.0	87	14.7
Laborers	8	2.9	9	3.2	9	4.6	6	3.4	2	1.1	1	.3	16	6.0	17	3.0
Total	277	100	281	100	196	100	176	100	186	100	290	100	268	100	558	93.9

Table 4-17

Means and Standard Deviations of Fathers' Census Scores for Sex, Ethnic and SES Groups

	Sex		Ethnic			SES	
	F	M	W	B	H	M	L
Mean	67.75	66.78	71.72	63.62	65.99	80.64	52.78
Standard Deviation	22.25	22.91	21.52	22.66	22.90	16.59	18.97
N	277	281	196	176	186	290	268

Table 4-18

Frequency and Percent of Level of Father's Education and Level of Mother's Education

	Father		Mother	
Level of Education	F	%	F	%
None or some grade school	24	4.0	24	4.0
Completed grade school	30	5.0	29	4.8
Some H.S. but did not graduate	95	15.8	87	14.5
Graduated from High School/ High School equivalency	160	26.7	202	33.7
Technical or business school after High School	21	3.5	25	4.2
Some college, but less than 4 years	69	11.5	80	13.3
Graduated from a 4 year college	88	14.7	88	14.7
Attended graduate or professional school	43	7.2	37	6.2
Don't know	70	11.6	28	4.7

A three-way ANOVA was computed (omitting don't know responses) for both level of father's education and level of mother's education. The ANOVA for father's level of education showed significant SES and ethnic main effects, with an interaction for these two factors:

$$\text{SES: } F_{1,518} = 373.59, \text{ pr} > F = .0001$$

$$\text{Ethnic: } F_{2,518} = 11.87, \text{ pr} > F = .0001$$

$$\text{SES x Ethnic: } F_{2,518} = 3.35, \text{ pr} > F = .0357$$

The means for the SES and ethnic groups were:

	White		Black		Hispanic	
SES	$\overline{X}$	N	$\overline{X}$	N	$\overline{X}$	N
Middle	6.26	98	5.79	89	5.42	95
Low	3.56	93	3.82	79	2.79	76

The fathers of black students in the low SES group had a higher level of education, in contrast to the group order for middle SES students.

Similar data on main effects were found for mother's level of education, but there was no significant interaction:

$$\text{SES: } F_{1,560} = 299.57, \text{ pr} > F = .0001$$

$$\text{Ethnic: } F_{2,560} = 39.46, \text{ pr} > F = .0001$$

Table 4-19 presents the means for the main effects of father's and mother's level of education.

Table 4-19

Means for Level of Father's Education and Level of Mother's Education

	Sex		Ethnic			SES	
	F	M	W	B	H	M	L
Father							
Mean	4.71	4.68	4.94	4.86	4.25	5.83	3.41
N	265	265	191	168	171	282	248
Mother							
Mean	4.66	4.67	4.85	5.19	3.94	5.66	3.61
N	290	282	193	190	189	294	278

97

In contrast to the data for father's level of education, mothers of black students had consistently higher levels of education (i.e., across SES groups) than mothers in the other two groups.

Of some interest also are the frequency distributions for the 12 sample cells on the don't know response for father's and mother's level of education. Tables 4-20 and 4-21 show these frequencies. The table for the don't know response for father's education show the frequencies concentrated with low SES groups, and the black and Hispanic ethnic groups. There were fewer don't know responses for mother's education. These responses again tend to be concentrated for the low SES groups, and show no difference across ethnic groups.

14. Does your mother work?

For the total sample, slightly over half of the students (307, 51.2%) responded yes, full-time work, and another 9.7% responded yes, part-time work (less than 20 hours per week). About 1% responded their mother was dead or living apart. If the student responded no, the student was asked, Has she worked in the past. Another 164 (27.3%) students responded yes to this second question and 40 (6.7%) responded no. All together, 88% of the sample students had mothers who had worked or were presently in the work force.

For the 51.2% of mothers currently working full time, half were mothers of males and half of females in the sample (155 and 152 respectively). The distribution by ethnic group was 126 black mothers employed full time, 94 Hispanic and 87 white mothers. The data by SES are also of interest: 190 mothers were middle SES and 117 low SES mothers working full time. Table 4-22 shows the frequencies and percents by SES and ethnic groups. For this urban sample, almost two of every three middle SES mothers were working full time and one in three low SES mothers were working full time. And, 88% of the mothers had been or were currently in the labor force. Of the 40 mothers who had never worked, 18 were middle SES and 22 low SES status; 9 were white, 9 were black, and 22 were Hispanic.

15. What is the main kind of work your mother does?

Student's were asked to respond to this question either for their mother's present occupation or past occupation (if not presently working). Data are missing for 60 cases (10%) of the total sample of 600. Table 4-23 gives the frequency distributions for mother's occupation by Hamburger (1958) category of work and level of work. As with the classification of father's occupation, the Professional occupations are concentrated at levels 1, 2 and 3 of the Hamburger levels (a combination of occupation and education) and designated as middle SES for the present study. Almost a third of the mothers' occupations fell into the Clerical category, and another third were in the Manual and Protective & Service categories. Few mothers of students in this sample had occupations in the Semiprofessional and Business categories.

Table 4-20

Frequency Distribution of Don't Know Response: Father's Education

SES	White	Black	Hispanic	Total
Middle				
Female	1	4	3	8
Male	1	7	2	10
Low				
Female	2	10	15	27
Male	5	11	9	25
	9	32	29	70

Table 4-21

Frequency Distribution of Don't Know Response: Mother's Education

SES	White	Black	Hispanic	Total
Middle				
Female	-	-	1	1
Male	1	2	2	5
Low				
Female	2	4	3	9
Male	4	4	5	13
	7	10	11	28

Table 4-22

Frequency and Percent of Mothers Working Full Time by SES and Ethnic Group Status

	Ethnic Group							
	White		Black		Hispanic		Total	
SES	N	%	N	%	N	%	N	%
Middle	57	65.5	77	61.1	56	59.6	190	61.9
Low	30	34.5	49	38.9	38	40.4	117	38.1
Total	87	100	126	100	94	100	307	100

The distributions of type of work categories were examined for the main student groups. Table 4-24 gives these distributions for sex, ethnic and SES groups. The expected differences by SES are apparent in Table 4-24, with fewer mothers of low SES students holding professional jobs. There are differences in the categories for ethnic groups, with more mothers of black students having worked in jobs in the professional category, and more mothers of white students in the clerical category ($X^2_{10} = 135.68$, $p = .000$).

A three-way ANOVA on the level of occupation showed significant main effects for ethnic ($F_{2,539}=6.21$, $pr > F=.0022$) and SES groups ($F_{1,539}=229.24$, $pr > F=.0001$). There was also a significant two-way interaction for ethnic group and SES ($F_{2,539} = 11.90$, $pr > F=.0001$). The SES main effect is expected; the means for levels of SES are 2.99 for middle SES and 4.82 for low SES groups. The means for the SES and ethnic groups of the interaction are in Table 4-25. As can be seen from the means, the interaction effect is associated with the mothers of black students. They tend to have significantly higher level scores within the middle SES groups and to have lower scores within the low SES groups.

Similar analyses were carried out for the classification of the mothers' occupations on the Bureau of the Census (1963) codes. Table 4-26 shows the distribution of occupations of mother for the type of work and Census score. Data are reported for 540 mothers (90%). The distribution data are similar to those for the Hamburger categories, with the largest percentage of mothers having occupations in the Clerical & Sales category. Table 4-27 gives the distribution of mother's type of work for the major student groups in the sample.

Table 4-23

Frequency and Percent of Mothers' Occupations Categorized by Type of Work and Level: Hamburger Categories

							Level									
	1		2		3		4		5		6		7		Total	
Category	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Professional	4	0.7	87	14.5	16	2.7	-	-	-	-	-	-	-	-	107	17.9
Semiprofessional	-	-	-	-	5	0.8	7	1.2	-	-	-	-	-	-	12	2.0
Business	1	0.2	4	0.7	16	2.7	6	1.0	1	0.2	-	-	-	-	28	4.8
Clerical	-	-	1	0.2	25	4.2	38	6.3	118	19.7	9	1.5	-	-	191	31.9
Manual	-	-	-	-	-	-	1	0.2	8	1.3	85	14.2	-	-	94	15.7
Protective and Service	-	-	1	0.2	1	0.2	40	6.7	36	6.0	26	4.3	4	0.7	108	18.1
Total[1]	5	0.9	93	15.6	63	10.6	92	15.4	163	27.2	120	20.0	4	0.7	540	90.4

[1] Missing/not reported N = 60, 10%

Table 4-24

Mother's Type of Work for Major Student Groups: Hamburger Categories

	Groups															
	Sex				Ethnic						SES					
	Female		Male		White		Black		Hispanic		Middle		Low		Total	
Category	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Professional	48	17.7	59	21.9	29	16.0	53	28.6	25	14.4	105	37.9	2	.8	107	19.8
Semiprofessional	5	1.9	7	2.6	2	1.1	3	1.6	7	4.0	11	4.0	1	.4	12	2.2
Business	18	6.6	10	3.7	12	6.6	9	4.9	7	4.0	22	7.9	6	2.3	28	5.2
Clerical	102	37.6	89	33.1	98	54.2	57	30.8	36	20.7	91	32.8	100	38.0	191	35.4
Manual	42	15.5	52	19.3	15	8.3	9	4.9	70	40.2	16	5.8	78	29.7	94	17.4
Protective & Service	56	20.7	52	19.3	25	13.8	54	29.2	29	16.7	32	11.6	76	28.8	108	20.0
Total	271	100	269	99.9	181	100	185	100	174	100	277	100	263	100	540	100
Missing	29		31		19		15		26		23		37		60	

Table 4-27 shows few differences for sex groups (X^2n.s.), but significant effects for the ethnic and SES groups. The chi square (12 df) for the ethnic groups is 134.8, p = .000. The data are similar to those for the Hamburger categories, with more mothers of black students in the Professional category, and more mothers of Hispanic students in the Operatives category.

Table 4-25

Means for Level of Mothers' Occupations for Ethnic and SES Groups: Hamburger Scale

	White	Black	Hispanic
Middle SES			
Mean	3.20	2.44	3.38
N	95	96	86
Low SES			
Mean	4.44	5.04	4.97
N	86	89	88

Again, an ANOVA was carried out for the Census scores. This analysis showed no main effect for sex, the expected significant main effect for SES ($F_{1,528}$=145.92, pr>F=.0001) and a significant main effect for ethnic group ($F_{2,528}$ =19.01, pr>F=.0001). There was also a significant interaction for SES and ethnic group ($F_{2,538}$ = 5.40, pr>F=.0048). The findings are somewhat similar to those for the level scores for the Hamburger scale. The means and standard deviations for the ethnic groups by SES are shown in Table 4-28. The mean score for the mothers of black students in this sample were the highest of the three groups in the middle SES category. However, the pattern for Census scores within the low SES groups was different. Lower Census scores tended to be found for mothers of Hispanic students in the sample.

Table 4-26

Frequency and Percent of Mothers' Occupations Categorized by Census Type of Work and Census Score

	Census Scores													
	00–29		30–59		60–69		70–79		80–89		90–99		Total	
Categories	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Professional/ technical	1	0.2	–	–	5	0.8	36	5.9	74	12.4	15	2.4	131	21.7
Business	–	–	3	0.5	–	–	11	1.9	14	2.4	6	1.0	34	5.8
Clerical & Sales	–	–	1	0.2	25	4.2	63	10.4	84	14.0	2	0.3	175	29.1
Craftsman/ foreman	–	–	1	0.2	3	0.5	3	0.6	–	–	–	–	7	1.3
Operatives	–	–	57	9.6	32	5.4	–	–	–	–	–	–	89	15.0
Service workers	6	1.0	94	15.7	2	0.3	–	–	–	–	–	–	102	17.0
Laborers	1	0.2	1	0.2	–	–	–	–	–	–	–	–	2	0.4
Total[1]	8	1.4	157	26.4	67	11.2	113	18.8	172	28.8	23	3.7	540	90.3

[1] Not reported/missing N=60, 10%

Table 4-27

Mother's Type of Work for Major Student Groups: Census Categories

	GROUPS															
	Sex				Ethnic						SES					
	Female		Male		White		Black		Hispanic		Middle		Low		Total	
Census	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Professional/ Technical	62	22.88	69	25.65	36	19.89	61	32.97	34	19.54	125	45.13	6	2.28	131	24.26
Business	23	8.49	11	4.09	14	7.74	11	5.95	9	5.17	28	10.11	6	2.28	34	6.30
Clerical and Sales	89	32.84	86	31.97	91	50.28	53	28.65	31	17.82	75	27.08	100	38.02	175	32.41
Crafts/Foremen	3	1.11	4	1.49	2	1.11	2	1.08	3	1.72	3	1.08	4	1.52	7	1.30
Operatives	40	14.76	49	18.22	13	7.18	8	4.32	68	39.08	15	5.42	74	28.14	89	16.48
Service Workers	54	19.93	48	17.84	23	12.71	50	27.03	29	16.67	30	10.83	72	27.38	102	18.89
Laborers	-	-	2	.74	2	1.11	-	-	-		1	.36	1	.38	2	.37
Total	271	100%	269	100%	181	100%	185	100%	174	100%	277	100%	263	100%	540	100%
	29		31		19		15		26		23		37			

Table 4-28

Means and Standard Deviations for Ethnic and SES Groups on Mother's Occupation: Census Scores

	White	Black	Hispanic
Middle SES			
Mean	76.35	77.11	70.58
Standard Deviation	15.74	15.10	20.53
N	95	96	86
Low SES			
Mean	65.21	55.25	49.02
Standard Deviation	18.07	19.25	15.68
N	86	89	88

Of some interest is the comparison between the types of work categories most frequently found for fathers and mothers of students in this sample. These distributions tend to reflect traditional findings for occupations of females and males in the labor force. Tables 4-29 and 4-30 show these distributions for the Hamburger and Census categories respectively. (The basis for computing percentages is the number responding to the question, 558 for fathers and 540 for mothers.) Fewer mothers are in the Business categories for both classification systems, and more mothers are in the Clerical and Sales categories. The somewhat higher frequency of mothers in the Professional category is due to the sample design, which represents all groups equally, rather than in proportion to their occurrence in the total labor force.

16. Who is the main income earner in your home?

For the total sample, 379 (63.2%) stated that their father was the main income earner in the home, 141 (23.5%) said the mother was, and 80 (13.3%) indicated another source of income. Typically, the "other" was welfare or Social Security. The distributions of responses of father as main income earner and mother as main income

Table 4-29

Percent of Parental Occupations: Hamburger Categories

Hamburger Category	Occupation of Father %	Occupation of Mother %
Professional	14.7	19.8
Semiprofessional	3.4	2.2
Business	20.6	5.2
Clerical	11.6	35.4
Manual	22.6	17.4
Protective & Service	27.1	20.0

Table 4-30

Percent of Parental Occupations: Census Categories

Census Category	Occupation of Father %	Occupation of Mother %
Professional/Technical	18.5	24.3
Business	22.4	6.3
Clerical & Sales	9.8	32.4
Crafts/Foreman	14.9	1.3
Operatives	15.8	16.5
Service Workers	15.6	18.9
Laborers	3.0	.4

earner are given in Tables 4-31 and 4-32. These tables show that the distributions within either the father or mother categories as main income earner tend to be similar. That is, there are no major differences by sex, SES or ethnic group in either table. The difference is between the tables, where there are more black mothers who are the main income earner for the student sample in this study. (For the three ethnic groups, and mother, father, other codes, $X^2{}_4$ is 35.65, $p = .000$.) Twice as many black students, compared to the white and Hispanic students, report their mothers as the main source of income (N's of 73 vs. 33 and 35, respectively).

17. Has your mother always worked?

When students replied that their mothers were working or had worked, questions 17 and 18 were asked to examine the work patterns. For the total sample, 208 students (34.7%) replied that their mother had worked continuously and full time; another 77 (12.8%) that their mothers had worked mostly continuously, with short interruptions; 128 (21.3%) that their mothers had worked off and on, stopping work for periods of a year or more; and 80 (13.3%) that they had worked only briefly, less than four years altogether. About 5% said their mothers had never worked and 1% that they were uncertain or did not know. The remaining 12% reported another pattern that did not fit the four main work patterns listed.

18. Timing of mother's work

The work pattern was checked in more detail in a series of questions, Did your mother work--before marriage? before children?..., to which students responded yes, no, or uncertain. The responses to these questions are given in Table 4-33. The responses indicate that about two-thirds of the women worked before marriage, but that only about one-third were working when their youngest child was 1 to 3 years old. As the children reached elementary school and older, the mothers re-entered the labor force and the percent of mothers working while the youngest was 12 years old was about the same as the number working before marriage.

C. Educational, Occupational and Family Plans and Expectations of Students

This section reports data for the 600 11th-grade students on a set of variables related to their future careers and family plans. Students were asked to evaluate themselves as students, to self-report their school average, and to give their educational aspirations. The next series of questions asked about their occupational aspirations--to list any occupations they had considered, which one they were most interested in doing, and which one they thought they would actually do. These occupations, most preferred and most likely to do, were both classified on Roe's (1956) categories. These questions were followed by one which asked if they knew anyone who was in their "most likely to do" occupation.

Table 4-31

Distribution of Father as Main Income Earner for the 12 Sample Cells

SES	White N	White %	Black N	Black %	Hispanic N	Hispanic %
Middle						
Female	35	24	24	23	37	29
Male	33	22	25	25	37	29
Low						
Female	42	28	25	25	23	18
Male	38	26	28	27	32	25
Total	148	100	102	100	129	101

Table 4-32

Distribution of Mother as Main Income Earner for the 12 Sample Cells

SES	White N	White %	Black N	Black %	Hispanic N	Hispanic %
Middle						
Female	7	21	19	26	8	23
Male	10	30	19	26	6	17
Low						
Female	8	24	18	25	12	34
Male	8	24	17	23	9	26
Total	33	99	73	100	35	100

Table 4-33

Frequency of Responses to Questions on When Mother Worked

	Yes		No		Uncertain		Missing	
Did Your Mother Work:	F	%	F	%	F	%	F	%
Before marriage	389	64.8	141	23.5	61	10.2	9	1.5
Before children	352	58.7	189	31.5	50	8.3	9	1.5
While youngest was 1-3 years old	210	35.0	351	58.5	26	4.3	13	2.2
While youngest was in daycare/nursery school	255	42.5	307	51.2	22	3.7	16	2.7
While youngest was in elementary school	374	62.3	203	33.8	8	1.3	15	2.5
While youngest was 12 years old (and older)	378	63.0	176	29.3	7	1.2	39	6.5

Students were also asked whether they planned to marry and have children, and, if so, how would having a family make a difference in their plans for work. A related question inquired about whether there was an adult that they knew personally and admired (role model). Another group of questions inquired about work-related decisions they expected to make for themselves and, for the same decisions, what they expected their spouses to do. The final set of data presented in this section examines the questions of to whom students talk about their occupational, educational, and marriage and family plans, and whether teachers or counselors have talked to students about possible work areas of interest. Data are summarized for individual questions.

20. How good a student would you say you are?

About half of the students (295) stated they were in the middle of the class, 193 (32%) said they were above the middle of the class, 65 (11%) said they were one of the best students in the class, and 45 (7.5%) said they were just good enough to get by. A three-way ANOVA showed no significant difference by sex, but did show significant main effects for ethnic group and SES ($F_{2,586} = 2.83$, $pr > F=.0598$; $F_{1,586}=20.22$, $pr > F=.0001$). Low SES students rated themselves lower in their class than did the middle SES students; means were 2.68 and 2.39, respectively (the higher the score, the lower the standing). Using Scheffe's test, the comparison of means for ethnic groups showed a significant difference between white and Hispanic students. White students tended to rate themselves higher than did the Hispanic students (means for white, black and Hispanic students were 2.46, 2.51, and 2.64, respectively).

21. What is your school average?

This question asked students to give a quantitative estimate of their class standing. A three-way ANOVA for the 588 cases with data on this variable showed significant main effects for sex, ethnic group, and SES, but no interactions. (The F's were 15.50, 5.80, and 47.51, respectively, all with $p < .01$.) The scale for this variable ranged from 1 = D (average of 69 or below), 2 = C (average of 70-72) to 8 = A-(average of 90-92) and 9 = A (average of 93-100). The mean for the total group of students was 5.33 and the means for the levels of the three factors were:

			SD
Sex	female	$\bar{X} = 5.63$	1.9
	male	$\bar{X} = 5.04$	1.9
Ethnic	white	$\bar{X} = 5.56$	2.0
	black	$\bar{X} = 4.98$	1.8
	Hispanic	$\bar{X} = 5.45$	2.0
SES	middle	$\bar{X} = 5.84$	1.8
	low	$\bar{X} = 4.80$	1.9

Females, middle SES students and white students stated they had higher school averages. These data differ from the self-ratings that were presented in the more qualitative form of statements, where females and males showed no difference in the average self-rating given. The correlation between the two self-report questions on class standing and school average differed for females and males: $r = -.61$ for males and $r = -.69$ for females.

22. How much education do you think you will have?

Half of the sample (49.5%) thought that they would graduate from a four year college. Another 26.3% thought that they would have as much education as professional or graduate school. Only 6.8% (41 students) thought they would finish high school and have no further education. The remaining 10% thought they would attend a technical, nursing or business school after high school, graduate from a two year college, or have some college but less than four years. The small percentage of students who stated they would finish high school only (6.8%) is a marked contrast to the level of education of parents for this sample of students, since 26.7% of the fathers and 33.7% of the mothers fell in the category of finishing high school only. The pattern overall for the students was almost a reversal of their parent's education. Seventy-five percent of the students thought they would have at least a college education; less than 25% of their parents had graduated from at least a four year college. Part of the reversal may be accounted for by the tradition of education in New York City, and in particular the experiment of open admissions that was evident in the early seventies, as well as the general increase in college attendance.

A three-way ANOVA showed significant SES and ethnic group main effects:

$$\text{Ethnic: } F_{2,577} = 5.15, \text{ pr} > F = .0061$$

$$\text{SES: } F_{1,577} = 72.28, \text{ pr} > F = .0001$$

The means for the two SES groups (on a scale from 2, finish high school only, to 7, professional or graduate school)are 6.12 and 5.18 for middle and low SES students. The ethnic group means are: 5.40 for white students, 5.78 for black students and 5.78 for Hispanic students.

Frequency distributions for the 12 sample cells are shown below for the students who thought they would graduate from a four year college (Table 4-34) and for those who planned on graduate or professional school (Table 4-35). A comparison of the two tables shows little difference between females and males within SES status. There are more middle SES status students who plan to attend professional or graduate school and overall fewer white students in this sample who plan to attend professional or graduate school. The tables show in more detail the data summarized by the ANOVA.

Table 4-34

Frequencies and Percents of Students Planning to Graduate from a Four Year College

SES	White N	White %	Black N	Black %	Hispanic N	Hispanic %	Total N	Total %
Middle								
Female	33	31	25	26	21	22	79	27
Male	33	31	22	23	20	21	75	25
Low								
Female	19	18	24	25	23	24	66	22
Male	20	19	25	26	32	33	77	26
Total	105	99	96	100	96	100	297	100

Table 4-35

Frequencies and Percents of Students Planning to Attend Professional or Graduate School

SES	White N	White %	Black N	Black %	Hispanic N	Hispanic %	Total N	Total %
Middle								
Female	14	37	20	33	21	36	55	35
Male	11	29	24	39	24	41	59	37
Low								
Female	6	16	10	16	7	12	23	15
Male	7	18	7	11	7	12	21	13
Total	38	100	61	99	59	101	158	100

The self level of education desired was compared to the level of education each student thought their spouse would have. These data are compared for female and male self decisions and future spouse decision in Table 4-36. Comparing the responses of females and males for their respective spouses (male and female) shows a slight trend for females to think their spouses will have a higher level of education than they themselves will, and, conversely, for males to predict that their spouses will have a lower level of education than they will. For example, females who plan to graduate from a four-year college tend to predict that their spouse will also (83%), and males predict a slightly lower rate (74%, although the difference is found distributed between both a lower and higher level of education for their spouse).

27. What jobs have you considered doing after graduation?

The responses to this item were coded in terms of the number of jobs or occupations students listed, and the next two questions (28 and 29) identified the occupations students were most interested in doing and the occupation they stated they would actually do. Responses to the latter two questions are coded for the Roe (1956) categories and for 29, for the Census (1963) categories also.

The students were asked the question, the interviewer recorded the occupation, and, if the student responded with fewer than five jobs, the student was asked: are there jobs you once considered but don't want any longer? Despite the probing, the majority of students responded with less than five jobs. The overall frequency distribution is given in Table 4-37. The mean for all 600 students is 3.1 jobs considered, with a standard deviation of 1.2. A three-way ANOVA tested for main effects. There were no differences in the frequency of responses for sex, ethnic, or SES groups. Eleventh-grade students, judging from these responses, have not considered many jobs, and this finding is invariant across both sexes, the three ethnic groups and two SES categories.

28. Which one (job) are you most interested in doing?

29. What occupation (job) do you think you will actually do?

Both questions were coded on Roe's (1956) classification of occupations by group (type or primary focus of occupation) and level (degrees of responsibility, capacity, and skill). Table 4-38 presents the frequencies and percents in each group and level of the Roe scheme for: A. Job most interested in doing; and B. Job most likely to actually do. As shown in the table, the groups of occupations students are most interested in doing were: Science, Organization, and Arts & Entertainment. The levels with the greatest frequencies are at the top of the scale, in terms of levels of responsibility required--Levels 1, 2, and 3. There are some changes in these percents when the jobs students state they are most likely to do are examined. There is an increase in the percent likely to have a job in the Organization category and a

Table 4-36

Frequencies and Percents of Self (Female or Male) Educational Plan and Spouse's Expected Education

		Spouse's Decision on Education							
Self Decision on Education		Finish High School		Graduate From College		More Education; Non-College		Total	
Finish high school		N	%	N	%	N	%	N	%
	Females	7	(44)	8	(50)	1	(6)	16	(100)
	Males	12	(50)	6	(25)	6	(25)	24	(100)
Technical, nursing, or business school after high school									
	Females	5	(28)	8	(44)	5	(28)	18	(100)
	Males	7	(54)	6	(46)	0	(0)	13	(100)
Graduate from a two-year college									
	Females	7	(27)	14	(54)	5	(19)	26	(100)
	Males	8	(53)	6	(40)	1	(7)	15	(100)
Some college--less than four years									
	Females	3	(30)	6	(60)	1	(10)	10	(100)
	Males	6	(67)	2	(22)	1	(11)	9	(100)
Graduate from a four-year college									
	Females	19	(13)	121	(83)	5	(3)	145	(100)
	Males	27	(18)	112	(74)	12	(8)	151	(100)
Professional or graduate school									
	Females	3	(4)	72	(95)	1	(1)	76	(100)
	Males	7	(9)	72	(90)	1	(1)	80	(100)
Total	Females	44	(15)	229	(79)	18	(6)	291	(100)
	Males	67	(23)	204	(70)	21	(7)	292	(100)

decrease in the Arts and Entertainment percentages (from 19% to 13.4%). The levels of responsibility show a slight decrease in the percents for the two highest levels, and an increase for Levels 3 and 4 (an increase of 1% in Level 3 and an increase of 3% in Level 4).

Table 4-37

Number of Jobs Students Have Considered

Number of Jobs	Frequency	Percent
0	3	.5
1	41	6.8
2	122	20.3
3	239	39.8
4	122	20.3
5	56	9.3
6	15	2.5
7	1	.2
8	1	.2

Table 4-39 presents the number and percent of females and males for the Roe classification scheme for the job students stated they were most likely to actually do. The main differences for the type of occupation given for the Roe groups were in the Service, Technology and Science groups. Females were more likely to identify jobs they were likely to do that were classified in the Service (16.3% to 9.5% for males) and Science (22.3% to 15.8%) categories. However, the Science category in the Roe scheme includes nurses, pharmacists and veterinarians, and including nurses is likely to inflate what is traditionally a male-dominated interest area, especially in the top levels of responsibility (scientists, university and college faculties, medical specialists). Males were more likely to name a Technology occupation than females (22.8% to 2.5%).

The levels of occupations were compared for the main groups in the sample design. The three-way ANOVA showed no significant main effect for sex ($pr > F = .63$). The effects for ethnic and SES groups were significant:

$$\text{Ethnic: } F_{2,556} = 10.30,\ pr > F = .0001$$

$$\text{SES: } F_{1,556} = 45.35,\ pr > F = .0001$$

Table 4-38

Frequency and Percent of Responses of Total Sample[1] in Each Roe Classification For:
A. Job Most Interested in Doing and B. Job Most Likely to Actually do.

		Group																	
		Service		Business		Organization		Technology		Outdoor		Science		General Culture		Arts & Entertainment		Total	
Level		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1	A[1]	29	5.0	-	-	5	.9	19	3.3	-	-	61	10.5	3	.5	2	.3	119	20.4
	B	23	4.0	-	-	2	.4	16	2.8	-	-	53	9.3	1	.2	-	-	95	16.7
2	A	18	3.1	3	.5	35	6.0	20	3.4	1	.2	43	7.4	61	10.5	72	12.4	253	43.3
	B	19	3.4	2	.4	46	8.1	17	3.0	1	.2	41	7.2	68	12.0	44	7.8	238	41.9
3	A	8	1.4	1	.2	43	7.4	19	3.3	3	.5	9	1.5	15	2.6	29	5.0	127	21.8
	B	7	1.2	3	.5	54	9.5	16	2.8	2	.4	11	1.9	14	2.5	23	4.1	130	22.9
4	A	18	3.1	2	.3	26	4.5	15	2.6	-	-	2	.3	5	.9	8	1.4	76	13.0
	B	22	3.9	2	.4	35	6.2	19	3.3	-	-	1	.2	4	.7	8	1.4	91	16.0
5	A	1	.2	-	-	2	.3	3	.5	1	.2	-	-	-	-	-	-	7	1.2
	B	2	.4	-	-	2	.4	4	.7	3	.5	1	.2	-	-	1	.2	13	2.3
6	A	-	-	-	-	-	-	-	-	-	-	1	.2	-	-	-	-	1	.2
	B	-	-	-	-	-	-	-	-	-	-	1	.2	-	-	-	-	1	.2
Totals																			
	A	74	12.7	6	1.0	111	19.0	76	13.0	5	.9	116	19.9	84	14.4	111	19.0	583	99.9
	B	73	12.9	7	1.2	139	24.5	72	12.6	6	1.1	108	19.0	87	15.3	76	13.4	568	100

[1] A. Missing N=17 2.8% of 600 B. Missing N=32 5.3% of 600

Table 4-39

Number and Percent of Females and Males in Major Groups and Levels of the Roe Classification for "Job Most Likely to Actually Do"[1]

Groups

		Service	Business Contact	Organization	Technology	Outdoor	Science	General Culture	Arts & Entertainment	Total
Females	N	46	3	72	7	1	63[2]	51	40	283
	%	16.3	1.1	25.4	2.5	.3	22.3	18.0	14.1	100
Males	N	27	4	67	65	5	45	36	36	285
	%	9.5	1.4	23.5	22.8	1.8	15.8	12.6	12.6	100

Levels

		1	2	3	4	5	6	Total	M	SD
Females	N	45	129	51	56	2	-	283	2.44	1.00
	%	15.9	45.6	18.0	19.8	.7	-	100		
Males	N	50	109	79	35	11	1	285	2.48	1.06
	%	17.5	38.2	27.7	12.3	3.9	.4	100		

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[1] Missing N by main factors: middle SES N = 18, Low SES N = 14; ethnic group, white N = 14, black N = 9, Hispanic N = 9.

[2] Includes nurses, pharmacists, veterinarians.

The distribution of females and males by level is given in Table 4-39 and the means and standard deviations for the ethnic and SES groups were:

	White	Black	Hispanic	Middle	Low
M	2.72	2.35	2.31	2.18	2.73
SD	1.11	.97	.97	.92	1.06

Table 4-40 gives the frequency and percent of responses for the total sample using the Bureau of the Census codes (1963). The distribution was highly skewed toward the Professional category, with 411 students stating they would actually do an occupation classified in this category. The Census scores were also highly skewed. The three-way ANOVA for the two-digit Census scores showed only one significant main effect, for SES, and one interaction for sex by ethnic group. The main effect $F_{1,555} = 30.72$, $pr > F = .0001$; the interaction $F_{2,555} = 7.77$, $pr > F = .0005$.

The means for Middle SES and Low SES were 87.81 and 81.63, respectively. The means for the interaction are given in Table 4-41. For females, the highest Census score means are for the white and black groups; for males the highest Census score means are for the Hispanic and black groups.

30. Do you know anyone who is a (x)?

This question asked whether the student knew anyone actually working in the occupation/job which the student gave in response to question 29 (job they will *actually* do). Slightly over half (55.2%) of the students responding to the question (N = 580 responding) knew someone in the occupation, either a parent (6.4%), a close friend or relative (31.4%), or someone else (17.4%). The remainder, 45%, said they did not know anyone in the occupation.

The next series of questions asked whether students planned to marry and have children, and whether these family plans would affect their plans for work.

37. Would you like to get married?
Do you plan to have children?
How many children would you like to have?

Almost all students responded they would like to get married. A second question asking, Will you marry? was included toward the end of the interview (Question 54), and 563 students (94%) responded yes. Only 32 (5%) said no. About 92% (551) said they planned to have children. Only 45 (7.5%) said they did not plan to have children. Table 4-42 shows the frequency distribution of those who responded negatively to the question of having children.

Table 4-40

Student Occupation, "Most Likely To Do":

Frequency and Percent of Responses in Each Category and for Score Groupings on the Census Codes.

Census Score

Census Categories	00 - 29		30 - 59		60 - 69		70 - 79		80 - 89		90 - 99		Total	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Professional	-	-	2	0.3	9	1.5	58	9.6	125	20.4	217	36.1	411	67.9
Business	-	-	1	0.2	1	0.2	8	1.5	26	4.3	12	2.0	48	8.2
Clerical & Sales	-	-	-	-	1	0.2	5	0.8	36	6.0	7	1.2	49	8.2
Craftsmen/Foremen	-	-	6	1.0	10	1.8	6	1.1	-	-	-	-	22	3.9
Operatives	-	-	4	0.6	4	0.7	-	-	-	-	-	-	8	1.3
Service Workers	1	0.2	13	2.2	1	0.2	10	1.6	-	-	-	-	25	4.2
Laborers	-	-	-	-	4	0.7	-	-	-	-	-	-	4	0.7
Total[1]	1	0.2	26	4.3	30	5.3	87	14.6	187	30.7	236	39.3	567	94.4

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[1] Missing data N = 33, (5.5%)

Table 4-41

Means and Standard Deviations of Census Scores for Sex and Ethnic Groups

	Ethnic Group		
	White	Black	Hispanic
Female			
$\overline{X}$	84.86	85.00	82.09
SD	11.84	12.99	15.28
N	91	97	95
Male			
$\overline{X}$	81.47	85.32	89.42
SD	14.92	12.84	13.51
N	95	94	95

Table 4-42

Frequency of Students Who Do Not Plan to Have Children

SES	White	Black	Hispanic
Middle			
Female	4	5	-
Male	2	3	3
Low			
Female	3	9	4
Male	4	7	1
Total	13	24	8

The responses to the question on the number of children desired ranged from 0 to 9+. Table 4-43 presents the number and percents for children desired and the number of children in the students' families. The mean number of children desired was 2.8 (SD of 1.2) and the mean for their own families was 3.3 (SD of 1.7). The correlations for these two variables are not significantly different from zero (r total sample = .071; r females only = .067; r males only = .080).

Table 4-43

Number and Percent for Children Desired and Children in Students' Own Families

No. of Children	No. of Children Would Like[1]		No. of Children in Family	
	F	%	F	%
1	16	2.8	51	8.6
2	257	46.4	175	29.4
3	157	28.3	166	27.9
4	89	16.1	93	15.6
5	20	3.6	47	7.9
6	10	1.8	31	5.2
7	--	--	17	2.9
8	1	0.2	8	1.3
9+	4	0.7	8	1.3
	N=554		N=594	

[1] 7 students stated 0 children

A three-way ANOVA for the number of children desired shows only the sex main effect is significant, $F_{1,549} = 9.77$, $\Pr > F = .0019$. The mean number of children desired by females in this sample was 2.94 (SD = 1.3, N = 218) and for males the mean number of children desired was 2.63 (SD = 1.1, N = 283). There were no significant interactions, indicating that the only reliable difference on the variable of number of children was that female students desired, on the average, more children than did male students.

38. Will having a family make a difference in your plans for work?

For the total sample 229 students (38.2%) said having a family will make a difference in their plans for work. Slightly over half, 316 students (53%), said no, it would not make a difference, and 31 (5%) were uncertain (24, 4%, did not respond). Of the 287 female students responding to this question, about half (50%) stated yes, a family would make a difference; 123 (43%) said no, and 7% said they were uncertain. For the 289 male students responding, 87 or 30% said yes, a family would make a difference, 192 (66%) said no, and 10 (3%) were uncertain. ($X^2_2 = 35.59$, $p = .000$ for sex and responses to this question.) Table 4-44 gives the data for the 12 sample cells on the yes, family will make a difference in work plans, response.

Table 4-44

Number and Percent Responding Yes, Family Will Make a Difference in Work Plans

	White		Black		Hispanic		Total	
SES	N	%	N	%	N	%	N	%
Middle								
Female	29	30.21	14	29.17	27	31.76	70	30.57
Male	15	15.63	6	12.5	13	15.29	34	14.85
Low								
Female	33	34.38	15	31.25	24	28.24	72	31.44
Male	19	19.79	13	27.08	21	24.71	53	23.14
Total	96	100	48	100	85	100	229	100

Although more females than males said the family would make a difference, the difference is not as large as might have been expected. Part of the paradox is in the reason given for the yes response. By far the majority of males stated that having a family would make a difference because they would have to work harder, become a steady provider for the family, or similar reasons. The females who responded yes gave as the reasons why that they might have to stay out of the work force until their children could go to school or attend an organized child care group, and that they might have to work part time. Taken in these contexts, the yes responses mean very different effects for female and male students.

Table 4-44 also shows that fewer blacks said having a family would make a difference in their plans for work. ($X^2_4 = 25.71$, $p = .000$ for ethnic group and question responses.) Student responses did not differ significantly for the two SES groups.

The next set of questions was concerned with the work patterns students anticipated for themselves and work pattern questions asking them to anticipate what their spouses (or a permanent companion) might decide to do in terms of their education and work plans.

40a. Work pattern

This question consisted of a rank order and rating task using five cards. The five cards described combinations of career vs. job, full time vs. part time, and not working as the last pattern. Table 4-45 presents the descriptions on the cards. (Directions

Table 4-45

Descriptions on Work Pattern Cards

A. Full-time career - Some people get a great deal of satisfaction out of their work. They enjoy working and would work even if they didn't have to. They work full time through most of their lives. They may take a few years off while their children are young, but then they return to their career.

B. Part-time career - Some people enjoy working and get personal satisfaction from their work, but they don't like to work full time. These people have careers like substitute teacher, artist or writer or the kind of work they can do at home. This type of work gives them a lot of extra time which they may spend with their children or on hobbies.

C. Full-time job - Some people work mostly so they can earn money. These people work full time most of their lives to support themselves and their families. They may take a few years off when their children are young, but then they return to their full-time job.

D. Part-time job - Some people work most of their lives at part-time jobs. This way they can earn some money but still have a lot of time left for other things--like hobbies or raising their children.

E. Not working - Some people choose not to work. They prefer to do other things with their time. They may spend time with friends, take care of their families, or follow a special interest. These people feel that other things are more important to them than working.

given by the interviewer are given in the interview schedule, Appendix 2.) The rankings were coded from 1 (high) to 5 (low). The ratings were given on a scale from 0, I would dislike this very much, to 8, I would like this very much. These ratings were transformed to a mean of 50 and a SD of 10 within each rater in order to adjust for different raters using different parts of the rating scale.

Table 4-46 presents the means and standard deviations of ranks given to each of the five work pattern cards by the main groups in the sample design. The orders of the mean ranks are very similar across groups, with the exception of the mean ranking given the pattern, Part-time Job. The female and white groups tended to rank part-time job as more desirable than full-time job, in contrast to the other main groups. The standardized ratings offer more information on the change in the average ranks.

Three-way ANOVAs were computed for each of the five work patterns using the standardized ratings (M = 50, SD = 10 within rater). The sex main effect was significant for four of the five patterns (all except part-time job, where the two-way interaction of ethnic and SES groups was significant). Table 4-47 lists the main effects, F and p values, and N's.

The means for Full-time Career pattern show that the male students rated this pattern higher than did the women (61.7 and 60.3, respectively, with SD's of 7.9 and 8.9). The means for the ethnic groups show that the Hispanic and black students rated this pattern higher than the white students (means of 61.9, 61.7, and 59.4, respectively, with SD's of 7.5, 7.2, and 10.1).

The pattern of Part-time Career received higher mean ratings from female students (mean = 56.7, SD = 6.9) than from male students (mean = 54.7, SD = 7.6). The Full-time Job pattern showed all main effects and one interaction were significant. Males rated a Full-time Job higher than females (50.8 and 48.3); black and Hispanic students rated this pattern higher than white students (means of 51.5, 49.6, and 47.5); and low SES students rated this pattern higher than middle SES students (50.6 and 48.4, respectively). The interaction of sex and ethnic groups for Full-time Job can be seen in the means below:

	Ethnic		
Sex	White	Black	Hispanic
Female	44.8	50.4	49.7
Male	50.2	52.6	49.5

While white females gave a lower rating to Full-time Job than did black and Hispanic females, Hispanic and white males gave the lower ratings to this work pattern.

Table 4-46

Means and Standard Deviations of Ranks for Work Patterns Given by the Main Sample Groups

	Sex				Ethnic						SES			
	Female		Male		White		Black		Hispanic		Middle		Low	
Work Patterns	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Full-time Career	1.7	1.1	1.6	.9	1.9	1.2	1.5	.8	1.5	.9	1.5	.9	1.7	1.1
Part-time Career	2.3	.9	2.4	1.0	2.3	.9	2.5	1.0	2.3	1.0	2.3	.9	2.4	.9
Full-time Job	3.4	1.2	2.9	1.2	3.4	1.3	2.8	1.1	3.1	1.2	3.3	1.2	3.0	1.2
Part-time Job	3.2	1.0	3.4	.9	3.1	1.0	3.4	.9	3.4	.9	3.3	.8	3.3	1.0
Not Working	4.4	1.0	4.7	.8	4.3	1.2	4.8	.6	4.6	.8	4.6	1.0	4.6	.9

Table 4-47

Significant Main Effects and Interactions for the Work Patterns

Work Pattern	Group Effect	df	F	p	Number per Group
Full-time Career	Sex	1	3.84	.051	300[1]
	Ethnic	2	5.51	.004	200
Part-time Career	Sex	1	12.14	.001	300
Full-time Job	Sex	1	12.13	.000	300
	Ethnic	2	10.47	.000	200
	SES	1	9.23	.002	300
	Sex x Ethnic	2	5.16	.006	100
Part-time Job	Ethnic x SES	2	4.63	.010	100
Not Working	Sex	1	3.98	.046	299 and 300
	Ethnic	2	14.85	.001	199, and 200, 200

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[1] N per group = 300 females and 300 males.

The significant interaction for Part-time Job was for SES and ethnic groups. The means were:

	Ethnic		
SES	White	Black	Hispanic
Middle	47.9	46.9	49.1
Low	49.4	48.5	47.0

For middle SES students, Part-time Job was rated highest by Hispanic students and lowest by black students. For low SES students, white and black students gave higher ratings than the Hispanic students.

For the pattern Not Working the significant sex and ethnic main effects were due to female students rating this pattern higher or as more desirable than male students (means of 36.3 and 35.0, respectively) and to white students rating this pattern higher than Hispanic and black students (means of 38.0, 35.2, and 33.6, respectively).

Overall, the mean ratings show that the fairly consistent sex differences occur because the female students are likely to rate part-time careers or not working higher than male students. Both the black and Hispanic students rate Full-time Work higher and Not Working lower than white students.

Beginning with a lead-in question, Will you work? students responded to a series of seven questions about their work decisions after school. In all but two cases, students stated they would work for pay after completing school.

52.2. What will your working hours be?

Half of the students, 304 or 51%, stated they expected to work full time. The other 50% was divided between those expecting to work "Mostly full time" (31%), those expecting to work "Sometimes full time, sometimes part time" (14%), and 4% expecting to work "Mostly part time (less than 20 hours per week)."

Table 4-48 shows the frequency and percent of students stating they expect full-time work hours. The responses for full-time work hours show little difference among the ethnic or SES groups. The major differences are between females and males, with females giving consistently fewer expectations for full-time working hours, regardless of ethnic group or SES status. (X^2_3 = 45.71, p = .000 for sex and categories 1-4; X^2 for ethnic and SES groups are not significant.)

52.3. What will your work continuity (pattern) be?

A large majority said they would expect to work either "continuously" (256 or 43.1%) or "mostly continuously (short interruptions)" (273 or 46.0%). Another 54 (9.1%) students stated they expect to work

"Off and on, stopping for periods of one year or more." Only 11 students (1.9%) expected to work "Briefly, less than four years altogether."

Table 4-48

Frequency and Percent of Students Stating They Will Work Full Time for Each Sample Cell

	Full-time Work							
	White		Black		Hispanic		Total	
SES	N	%	N	%	N	%	N	%
Middle								
Female	19	18.6	23	21.9	18	18.5	60	19.7
Male	30	29.4	32	30.5	31	32.0	93	30.6
Low								
Female	17	16.6	22	20.9	18	18.5	57	18.8
Male	36	35.3	28	26.7	30	31.0	94	30.9
Total	102	99.9	105	100	97	100	304	100

A three-way ANOVA showed significant F values for sex ($F_{1,582}$ = 79.98, pr>F=.0001) and for ethnic group ($F_{2,582}$ = 4.81, pr> F=.0085). More males than females expected to work continuously, as shown by means of 1.46 and 1.94, respectively (where continuously was coded "1" and mostly continuously as "2," and Off and on was coded "3" and Briefly as "4"). Consistent with other data on this sample, black students had means indicating they expected to work more continuously than Hispanic or white students (means of 1.6, 1.7, and 1.8, respectively).

52.4. Will you change your work often?

This question asked whether students would work in one field through their working lives, or vary this pattern. Table 4-49 shows the coding categories presented to students and the frequency and percent of responses for the total sample of 600 11th-grade students. A majority of students felt they would start in one field, and remain in this field through their working lives. The second largest category was the 29% of students who stated they were likely to start in one field, and change to a new field at some time. The chi squares for sex, ethnic and SES groups were not significant.

Table 4-49

Total Sample Responses to, Will You Change Your Work Often?

Will You Change Your Work Often?

Code	Meaning	F	%
1	Try a variety of different jobs, not all in one field	58	10.0
2	Start in one field, change to a new field at some time	173	29.7
3	Start in one field, remain in this field through working life	351	60.3
Total		582[1]	100%

[1] 17 students responded they would have an "other" pattern, and 1 student did not respond.

52.5. How will you combine work and family?

The question had two parts: the first part had three categories that asked for a general pattern about work and marriage/children. Slightly over half the students (343 or 57.2%) said they expected to "work continuously regardless of marriage/children." Another 11 students (2%) stated they intended to work before marriage only, and 232 (39%) intended to work before children only. Of those intending to work continuously, 63 (18%) were females, and the remainder were males ($X^2_2 = 327.66$, $p = .000$). There were no differences in this continuous work category between middle and low SES students, and only slight differences for ethnic groups: 127 black students as compared to 112 Hispanic and 104 white students expected to work continuously (X^2 for ethnic groups and three response categories approached significance, $p = .0721$).

The second part of the question examined when students would work in relation to the ages of their children. The percentages for this question discussed here are based only on female student responses. Table 4-50 shows the frequencies for work in relation to age of children. Of the 232 female students, only 15 (6.5%) expect to work

Table 4-50

Frequency of Female Responses to Combinations of Work and Family

Combinations of Work and Family		Female Responses N	%
1	when children are 1-2 years old	15	6.5
2	when children are 3-5 years old	86	37.1
3	when children are 5-12 years old	98	42.2
4	when children are 12 years or older	33	14.2
	Total	232	100%

when their children are 1-3 years old. But 79% expect to work when the children are between 3 and 12 years old. A chi square for the female students in the three ethnic groups was significant ($X^2_8 = 18.37$, p = .0186). The black students indicated an intention to return to work when children are younger:

Work when children are:		White		Black		Hispanic	
		N	%	N	%	N	%
1	1-3 years	2	3	10	14	3	4
2	3-5 years	24	29	32	44	30	38
3	5-12 years	40	48	22	30	36	45
4	12+ years	16	19	7	9	10	12
5	Other	1	1	2	3	1	1

The X^2 for SES groups approached significance (p = .0569) and the trend was for more middle SES students to plan a return to work when children were 3-5 years old (43% vs. 30%).

After students answered the set of work decisions for themselves, they were asked to answer the same set of questions for their spouses--to say what decisions their spouses would make for work and school.

53. What level of education will (spouse) have?

Overall, 73.2% of the students thought their spouse would have a college education and 6.5% (39) students predicted they would have non-college further education. The remainder (19.3%) stated their spouse would have a high school education only.

Table 4-51 shows the number and percent in each type of education decision for the main sample groups. More females than males thought their spouse would have a college education (78% vs. 70%). Or, stated for the male students, male students did not expect as many of their future wives to have a college education as did female students for future husbands ($X^2_2 = 5.83$, $p = .0543$, for sex by three response categories). In this sample more of the black students expected their spouses to have a college education. ($X^2_4 = 10.68$, $p = .0304$, for ethnic group and response categories.) And, more of the middle SES students expected their spouses to have a college education ($X^2_2 = 28.82$, $p = .0000$).

53.2. Will he/she work?

A majority of students stated their spouses would work, 563 or 94%. Only 10 (1.7%) said their spouses would not work and 22 (4%) stated their spouses would be a homemaker.

53.3. What will the working hours be?

The distribution of responses was more variable for this question than for the earlier question asking for the student's own working hours. More students selected categories other than "full time" or "mostly full time" for their spouses working hours. For example, 19% (of those responding to one of the four patterns) predicted that their spouses would work mostly part time (less than 20 hours per week). The distribution of these 105 responses is shown in Table 4-52. All are male students estimating what their spouses' work hours will be.

Of the 248 (44%) students who thought their spouses would work full time, 224 were female responses. Only a small number of male students (24 or 9%) estimated that their wives would work full time (see Table 4-53).

Table 4-51

Number and Percent of Education Decisions for Spouses

Group	High School		Non College Further Education		College Education		Total	
	N	%	N	%	N	%	N	%
Sex								
Female	47	16	18	6	232	78	297	100
Male	69	23	21	7	207	70	297	100
Ethnic								
White	51	26	13	6	136	68	200	100
Black	27	14	10	5	159	81	196	100
Hispanic	38	19	16	8	144	73	198	100
SES								
Middle	34	12	15	5	247	83	296	100
Low	82	28	24	8	192	64	298	100

Table 4-52

Number of Students Responding that Their Spouse Would Work Mostly Part Time (Less than 20 hrs. per week)

SES	White	Black	Hispanic	Total
Middle				
Female	-	-	-	-
Male	20	10	17	47
Low				
Female	-	-	-	-
Male	14	20	24	58
Total	34	30	41	

Table 4-53

Spouse Working Hours Predicted by
Female and Male Students

Code	Female		Male	
	N	%	N	%
1 Full Time	224	74.92	24	8.99
2 Mostly Full Time	60	20.07	54	20.22
3 Mostly Part Time	-	-	105	39.33
4 Sometimes Full Time Sometimes Part Time	15	5.02	84	31.46
Total	299	100	267	100

53.4. What will the work pattern be?

The work patterns predicted for spouses varied according to the sex of the respondent. A three-way ANOVA for the four main work patterns showed the main effects for sex, ethnic and SES groups were significant:

Sex: $F_{1,562} = 497.04$, pr > F = .0001

Ethnic: $F_{2,562} = 3.11$, pr > F = .0452

SES: $F_{1,562} = 3.64$, pr > F = .0571

The means for the sex, ethnic, and SES groups were:

	$\overline{X}$		$\overline{X}$		$\overline{X}$
Female	1.37	White	2.01	Middle	1.90
Male	1.55	Black	1.88	Low	1.98
		Hispanic	1.92		

The means for the SES groups show, for example, that low SES students predicted a less continuous work pattern for their spouses than did the middle SES group.

Table 4-54 presents the responses separately for females and males. Following the trends of the other questions in these work decisions for spouses, 94% of the males thought their wives would work less than continuously, whereas 98% of the females stated their husbands would work either continuously or mostly continuously.

Table 4-54

Number and Percent of Responses to Four Categories of Work Patterns for Spouses, by Sex

	Sex			
	Female		Male	
Work Patterns	N	%	N	%
1 Continuously	192	64.6	18	6.5
2 Mostly continuously (short interruptions)	101	34.0	115	41.5
3 Off and on, stopping work for periods of one year or more	4	1.4	118	42.6
4 Briefly, less than four years altogether	-	-	26	9.4
Total	297	100	277	100

53.5. Will there be work changes?

Table 4-55 presents the responses to this question by sex. The table shows both the predicted responses for self and for spouse in terms of occupational stability. Chi square for the responses for spouses' decisions was 24.40 (df = 2, p = .0000). Fewer females than males thought their spouses would try a variety of jobs, not all in one field. Males predicted less job stability or more changes for their spouses than they did for themselves, whereas the female students predicted about the same amounts (category 3).

The responses for ethnic groups did not differ significantly, but those for SES groups did ($X_2^2 = 7.49$, p = .024). Fewer low SES students predicted highly stable work patterns for their spouses than did middle SES students (44% vs. 57% for category 3).

Table 4-55

Number and Percent of Responses by Sex to Alternative Work Changes for Spouses

	Females				Males				Total			
	Spouse		Self		Spouse		Self		Spouse		Self	
	N	%	N	%	N	%	N	%	N	%	N	%
1 Try a variety of different jobs, not all in one field	41	14.2	28	9.7	83	31.5	30	10.2	124	22.5	58	10.0
2 Start in one field, change to a new field sometime	85	29.4	93	32.3	68	25.9	80	27.2	153	27.7	173	29.7
3 Start in one field, remain in this throughout working life	163	56.4	167	58.0	112	42.6	184	62.6	275	49.8	351	60.3
Total	289	100	288	100	263	100	294	100	552	100	582	100

53.6. How will work and family be combined?

The responses to this question are coded in two sections. Chi squares for the main factors showed only the sex groups differed significantly ($X^2_1 = 361.01$, $p = .0000$) when responses, continuous work and work before children and before marriage, are compared. Of more interest, however, is the comparison between the female responses for themselves and the male responses for their spouses. Table 4-56 presents the responses of females to these questions for themselves (question 52.5) and for males giving responses for their spouses (question 53.6). The comparison of the data show a tendency for fewer males to expect their wives to work continuously than do females (12% vs. 22%).

The second half of Table 4-56 presents a more detailed series of responses on timing of work and age of children. Few females and males expect women to work when the children are ages 1 to 3 (about 7% in each group), and the general trend is for the males to predict a more delayed return to work for their spouses, than the females predicted for themselves.

The last series of questions reported in this chapter are concerned with the persons students talk to about their educational, occupational, marriage and parenthood plans for the future and adult role models (admired or liked adults). Also, two questions asked whether students talked to teachers or counselors about their plans for work.

31. Who do you talk to about your occupational plans?

32. Who do you talk to about your educational plans?

33. Who do you talk to about your marriage and family plans?

The open-ended responses to these questions were coded into 10 categories, as shown in Table 4-57. For the total sample of 600 students the largest percent of responses for both occupational and educational plans was for the "other/combination" of persons. This typically meant students talked to parents, other family members, and friends about their occupational and educational plans. There were few students who said they did not talk to anybody about these plans. However, the response to question 33 was different: a third of the students said they did not talk to anybody about marriage or family plans. The person to whom a student talked most frequently was a friend their own age or, again, a combination of persons in their lives.

There are interesting differences in persons talked to according to the main sample groups. Table 4-58 presents the data for frequency and percents for occupational plans, and Tables 4-59 and 4-60 for educational and marriage and family plans.

Table 4-56

Predicted Combinations of Work and Family for Female Students (Self) and for Male Students (for Spouses)

Code	Response	Females-Self		Males for Spouses	
		F	%	F	%
1	work continuously regardless of marriage/children	63	21.6	32	12
2	work before marriage only	11	3.8	16	6
3	work before children	218	74.7	218	82
	Total	292	100	266	100
1	work when children are 1-3 yrs. old	15	6.5	15	6.8
2	work when children are 3-5 yrs. old (and not before)	86	37.1	69	31.1
3	work when children are 5-12 yrs. old (and not before)	98	42.2	88	39.6
4	work when children are over 12 yrs. old (and not before)	33	14.2	50	22.5
	Total	232	100	222	100

Table 4-57

Frequency and Percents for Persons to Whom Students Talk About Their Plans

	Occupational Plans		Educational Plans		Marriage and Family Plans	
Category	F	%	F	%	F	%
Father (& foster)	30	5.0	33	5.5	8	1.3
Mother (& foster)	86	14.3	118	19.7	92	15.3
Parents, family	92	15.3	153	25.5	64	10.7
Sibling	21	3.5	19	3.2	17	2.8
Other relative	15	2.5	10	1.7	9	1.5
Friend own age	35	5.8	22	3.7	105	17.5
Myself	-	-	-	0.2	6	1.0
Professional	29	4.8	27	4.5	-	-
Other/combination	240	40.0	174	29.0	102	17.0
Nobody	52	8.7	43	7.2	197	32.8

For discussions about occupational plans more daughters reported talking to their mothers than did sons, and for SES groups, more low SES students (37%) report they do not talk to anybody about their occupational plans. This changes for educational plans: there are no significant sex differences and only 10% of the low SES students reported talking to "nobody" about educational plans. (X^2 for SES groups is not significant at $p \leq .05$.) For marriage and family plans, however, from 22% to 44% of each of the major sample groups report they do not talk to anyone.

34. Has a teacher ever talked to you about any kinds of work for you?

35. Has a counselor ever talked to you about any kinds of work for you?

Table 4-58

Frequency and Percent for Persons to Whom Students Talk About Their Occupational Plans

	Father		Mother		Parents		Sibling		Other Rel.		Friend		Myself		Profes.		Other Comb.		Nobody		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Sex																						
Female	9	3	58	19	38	13	6	2	5	2	15	5	-	-	14	5	132	44	23	8	300	100
Male	21	7	28	9	54	18	15	5	10	3	20	7	-	-	15	5	108	36	29	10	300	100
Ethnic																						
White	12	6	18	9	39	20	4	2	4	2	12	6	-	-	7	4	84	42	20	10	200	100
Black	8	4	39	20	21	10	8	4	8	4	10	5	-	-	12	6	78	39	16	8	200	100
Hispanic	10	5	29	14	32	16	9	4	3	2	13	6	-	-	10	5	78	39	16	8	200	100
SES																						
Middle	22	7	35	12	49	16	7	2	5	2	12	4	-	-	17	6	133	44	20	7	300	100
Low	4	1	48	16	21	7	11	4	4	1	57	19	3	1	-	-	42	14	110	37	300	100

Table 4-59

Frequency and Percent for Persons to Whom Students Talk About Their Educational Plans

	Father		Mother		Parents		Sibling		Other Rel.		Friend		Myself		Profes.		Other Comb.		Nobody		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Sex																						
Female	12	4	67	22	72	24	6	2	4	1	13	4	-	-	14	5	96	32	16	5	300	100
Male	21	7	51	17	81	27	13	4	6	2	9	3	1	.3	13	4	78	26	27	9	300	100
Ethnic																						
White	12	6	26	13	71	36	5	2	2	1	7	4	-	-	6	3	59	30	12	6	200	100
Black	5	3	56	28	36	18	6	3	4	2	6	3	-	-	13	7	62	31	12	6	200	100
Hispanic	16	8	36	18	46	23	8	4	4	2	9	5	1	.5	8	4	53	26	19	10	200	100
SES																						
Middle	24	8	52	17	79	26	9	3	4	1	8	3	-	-	12	4	99	33	13	4	300	100
Low	9	3	66	22	74	25	10	3	6	2	14	5	1	.3	15	5	75	25	30	10	300	100

Table 4-60

Frequency and Percent for Persons to Whom Students Talk About Their Marriage and Family Plans

	Father		Mother		Parents		Sibling		Other Rel.		Friend		Myself		Profes.		Other Comb.		Nobody		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Sex																						
Female	1	.3	57	19	30	10	12	4	4	1	67	22	4	1	-	-	60	20	65	22	300	100
Male	7	2	35	12	34	11	5	2	5	2	38	13	2	.7	-	-	42	14	132	44	300	100
Ethnic																						
White	2	1	21	10	33	16	5	3	1	.5	40	20	1	.5	-	-	38	19	59	30	200	100
Black	1	.5	40	20	16	8	4	2	5	3	32	16	2	1	-	-	30	15	70	35	200	100
Hispanic	5	3	31	15	15	8	8	4	3	2	33	16	3	2	-	-	34	17	68	34	200	100
SES																						
Middle	4	1	44	15	43	14	6	2	5	2	48	16	3	1	-	-	60	20	87	29	300	100
Low	4	1	48	16	21	7	11	4	4	1	57	19	3	1	-	-	42	14	110	37	300	100

These questions were asked to obtain an estimate of the relationship between school staff and students' thinking about their occupational plans. For the total sample, 210 students (35%) stated that a teacher had talked to them about work possibilities. The remaining 65% said that no teacher had talked to them. For counselors, the percents were similar. However, an even smaller percent reported that a counselor had talked to them about any kinds of work they might do (164 students, 27%).

Examining the main sample groups, there were no significant differences among the sex, ethnic or SES groups for yes responses to the question of whether a teacher had talked to them about their work possibilities. Table 4-61 shows the yes responses to the question of whether a teacher or counselor had talked to a student about any type of work. Within the 27% of the sample who had talked to a counselor about possible work, there were no significant sex or SES group differences. There was a significant X^2 for ethnic groups. More black students reported they had talked to counselors about work than did the white and Hispanic students (42% vs. 26%, and 33%, respectively).

40. What adult do you know personally who is living a life you would like to have? What do you like or admire most about (name of this person)? How would you like to be like them?

These questions were intended to examine whether the student had a role model, whether the role model was the same sex or opposite sex, what aspect of the person the student wants to emulate, and the relationship of the role model to the student. In the pilot study this question had been asked generally, What adult is living a life you would like to have? But this question elicited responses of popular singers or prominent sport figures, about whom students had little information, or elicited the response, no one. The question was modified to ask about an adult the student knew personally whom they liked or admired. This modification improved the amount of information students knew about the adult model and reduced, but did not eliminate, the no one response. The no one response was often accompanied by the explanation that the student was different from any adult the student knew and was independent of the adults the student knew. Almost a third of the sample (32%) did not identify an adult they would like to be like.[1] The analyses which follow are based on the 410 students who did name an adult role model, someone whom the student admired or liked with respect to at least some aspect of their lives as adults.

The sex of the adult was coded according to whether it was the same as the student or the opposite sex to the student. Of the 396 students who clearly identified the adult, 84% liked or admired an adult of the same sex; only 65 students (16%) named an adult of the

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[1] The no responses were distributed approximately equally between males and females, the three ethnic groups, and the two SES groups.

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Table 4-61

Number and Percents of Students who had Talked to a Teacher or a Counselor About Work

	A Teacher							
	White		Black		Hispanic		Total	
SES	N	%	N	%	N	%	N	%
Middle								
Female	18	25	23	31	19	29	60	28
Male	14	20	17	23	11	17	42	20
Low								
Female	19	27	16	22	17	26	52	25
Male	20	28	18	24	18	28	56	27
Total	71	100	74	100	65	100	210	100
	A Counselor							
Middle								
Female	8	19	21	31	19	35	48	29
Male	8	19	17	25	15	28	40	24
Low								
Female	14	33	18	26	10	19	42	26
Male	12	29	12	18	10	19	34	21
Total	42	100	68	100	54	100	164	100

opposite sex. Table 4-62 shows the frequencies of same and opposite sex adult models for the major groups in the sample. There were slightly more females who identified adult models of the opposite sex (22% of female models were adult males and 11% of male models were adult females).

Table 4-62

Number and Percent of Students Identifying Same or Opposite Sex Adult Models

	Same Sex		Opposite Sex	
	N	%	N	%
Sex				
Female	152	78	43	22
Male	180	89	23	11
Ethnic				
White	118	89	15	11
Black	114	82	25	18
Hispanic	100	79	26	21
SES				
Middle	167	81	38	19
Low	165	85	28	15

The aspect of the adult life the student wanted to emulate was coded for whether the student mentioned the work or family pattern of the adult, or aspects of the person's personality (e.g., the person was thoughtful of others, well-liked, confident, handled life easily, or had a good sense of humor). Another set of categories was used if the student mentioned more than one aspect of adult life.

The percents of students mentioning only one aspect of the adult's life were: personality (104 or 25%); work pattern (65 or 16%); and

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family pattern (16 or 4%). Combining each aspect of the adult life with at least one other resulted in the following percents:

Work pattern	49%
Family pattern	24%
Personality	54%

The main aspects of adult life cited alone or in combination with another part were the adult's personality and work pattern (i.e., some part of the person's working life). Aspects of family life were not cited as often by 11th-grade students. A major part of the satisfactions many persons experience as adults through marriage and family are not mentioned as frequently as work or personality characteristics.

The relationship of the adult model to the student was also coded. Of the 410 who responded, 271 (66%) identified someone related to them. The highest frequency was the 150 students (36.6%) who identified a relative other than father, mother, grandparent or sibling. The adult identified was the father for 9.8% of the students, the mother for 7.6%, a grandparent for 2.4%, and a sibling for 9.8%. An older friend was identified as the most admired adult for 16.3% of the students and a professional (typically a teacher or doctor known to the family) for 5.6%.

In summary, these 11th-grade students typically named an adult role model of the same sex, named a relative in the immediate or close family, and focused on the personality or work aspects of the adult. However, almost a third of the students did not identify an admired or liked adult role model in the interview setting.

CHAPTER IV

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CHAPTER V

FINDINGS: PART II

Analyses of the Values

Essential to any analysis of the occupational, marriage and parenthood values are the distributions of rankings and ratings given the values, since the rationale for the values is that there is no single value or value description that will be ranked as most important by every respondent. This rationale was the basis of the development of the occupational values (Katz, 1969, 1973), and was fundamental to the development of the marriage and parenthood values reported in the present study. Unless a heterogeneous group of respondents endorses different values as most important to them in their decision making for occupations, marriage or parenthood, the values will not represent the diversity of human needs and satisfactions that are proposed by most psychological theories (e.g., Maslow, 1954; Margenau, 1959; & Rokeach, 1973. Nor would the values be useful in applications such as the computerized interactive guidance system SIGI (Katz, 1973) or hold potential for counseling students to clarify their understanding of their values. As Katz (1963) described the function and importance of defining individual values, the individual needs to ask, in addition to What are my values? such questions as Where have my values come from? and then the individual is better prepared to ask, Where are they taking me?

Katz had discussed earlier (1966) the influence of parents, church, peers, socioeconomic status and other variables as influencing the development of occupational values. These same sources also influence the norms and behaviors of sex roles. For this reason, the present study was designed to examine the relationship of the values to student status on three main factors: sex, ethnic or sociocultural group membership, and socioeconomic status (SES).

The sets of values have been analyzed using several procedures. Before examining the relationship of the values to educational and occupational decisions it is important to know to what extent the individual's ratings or rankings of individual values are associated with her or his sex, membership in sociocultural groups such as black, Hispanic or white, and status as defined by socioeconomic definitions of middle and low categories. To the extent possible, the relationships found for the present sample can be compared to those found in other studies (e.g., Norris, Katz & Chapman, 1978), at least for the occupational values.

The first sections of the analyses of the values are therefore concerned with the distributions of rankings and ratings for the total sample of 600 11th graders, and with the similarity or difference in responses of students when classified as members of sex, ethnic and SES groups. These analyses are presented first for the occupational values and then for the marriage and parenthood values developed in this study. The next section examines the interrelationship of the three value sets by means of factor analyses for the total sample, females and males.

After examining the values and their interrelationships, the relationship of the values to educational and occupational decisions (aspirations) is studied by means of discriminant function analyses. That is, to what extent are groups formed by level of educational or occupational aspiration predicted or identified by their occupational, marriage or parenthood values?

The next section of this chapter reports the analyses of Coombs' (in press) involvement and job-child preference level scales. The analyses examine the relationship between the two scales for the total high school sample and for females and males. There are also data on variables in the study which are related to the work-children trade-off scales. The next section examines the responses of the 11th graders to questions about the relative value of work, marriage and children, and female-male responsibility for activities of families with children.

One other major analysis examines the relationship of the values to other career decision-making variables. If the values show some sex differences, as found in the pilot study and in the Norris, Katz and Chapman (1978) study, then these values can be used to form "sex typical" and "sex atypical" groups for both females and males. The four groups can then be compared for their similarity and differences on a number of other variables in the study, particularly those related to women's traditional sex roles. These data are of interest because the analyses of females and males often mask the overlapping distributions of the sexes that occur for any psychological variable studied. Further "refinement" of the types of females and males offers opportunity to understand how occupational and educational choices are conditioned by membership in different groups and, theoretically, could help with varying the approaches to counseling and guidance as a function of the individual's status and group membership. Particularly the content or substantive areas considered as part of career decision making could vary according to the match between educational and work aspirations and planning for marriage, parenthood, and homemaking. The analyses in this section follow those carried out by Norris, Katz and Chapman (1978).

A. Occupational Values

The ten occupational values that were rank ordered and rated by students were: High Income, Prestige, Independence, Helping

Others, Security, Variety, Leadership, Interest Field, Leisure, and Early Entry (Katz, 1973). As mentioned earlier, an important criterion for the values is their ability to evoke different rankings and ratings of importance from respondents. That is, not all respondents should place the same value term as most or least important. Although this criterion is already well demonstrated for the occupational values, it is useful to examine the distributions of rank orders and ratings for them again here, particularly since they have served as a model for the development of the marriage and parenthood values.

Table 5-1 presents the number and percent of students assigning ranks from 1 (high) to 10 (low) to each value in order of their importance to the student's choice of an occupation. An examination of the second column for each value, the percent column, shows fairly rectangular distributions across the rank order numbers. For example, the distribution for the value High Income, ranges from a low of 6.5% to 12.5%, with seven of the ranks having a percent of 9.5-12.5. This distribution is consistent for the values, with the exceptions of Field of Interest and Early Entry. Field of Interest was given high ranks (1 or 2) by about half of the sample. And, consistent with the high level of educational aspirations for this sample, Early Entry received the lowest rank of 10 from half of the sample. However, it should be noted that even for Early Entry each rank order was used: eight students ranked Early Entry as most important to them in choosing an occupation.

Similar data are found for the ratings in Table 5-2. Ratings could range from 0, not important at all, to 8 greatly important. The distributions of ratings tend to have smaller standard deviations than the ranks (which forced students to spread out the numbers given to values).

The occupational values ranked and rated highest or most important and least important are the same, when the means are used to identify these values. There is only a change in order in the ranks and ratings:

Ranks Most Important	Ratings Most Important	Ranks Least Important	Ratings Least Important
Field of Interest	Field of Interest	Early Entry	Early Entry
Helping Others	Security	Leisure	Leadership
Security	Helping Others	Leadership	Leisure

For the 11th-grade students, the most important value to think about in choosing an occupation was that it was in their field of interest (e.g., science, art, verbal, and so on). The least important was Early Entry, defined as starting work right away, rather than spending time, effort and money for more education. These most and least important values are for all 600 students. The data were also examined for differences among the main groups in the sample.

Table 5-1

Number and Percent of Students Assigning Ranks to Ten Occupational Values

	Occupational Values																			
	High Income		Prestige		Inde-pendence		Helping Others		Security		Variety		Leader-ship		Field of Interest		Leisure		Early Entry	
Rank	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1	75	12.5	44	7.3	40	6.7	85	14.2	52	8.7	35	5.8	30	5.0	226	37.7	6	1.0	8	1.3
2	72	12.0	79	13.2	66	11.0	88	14.7	65	10.8	60	10.0	39	6.5	93	15.5	26	4.3	12	2.0
3	65	10.8	81	13.5	83	13.8	62	10.3	88	14.7	73	12.2	48	8.0	46	7.7	34	5.7	20	3.3
4	64	10.7	73	12.2	80	13.3	75	12.5	84	14.0	67	11.2	51	8.5	45	7.5	41	6.8	20	3.3
5	50	8.3	69	11.5	68	11.3	67	11.2	94	15.7	69	11.5	47	7.8	55	9.2	64	10.7	16	2.7
6	63	10.5	67	11.2	71	11.8	56	9.3	60	10.0	64	10.7	73	12.2	30	5.0	80	13.3	35	5.8
7	73	12.2	65	10.8	77	12.8	57	9.5	50	8.3	66	11.0	61	10.2	35	5.8	85	14.2	31	5.2
8	57	9.5	62	10.3	54	9.0	48	8.0	44	7.3	64	10.7	75	12.5	34	5.7	113	18.8	49	8.2
9	42	7.0	34	5.7	46	7.7	42	7.0	43	7.2	76	12.7	100	16.7	22	3.7	99	16.5	97	16.2
10	39	6.5	26	4.3	15	2.5	20	3.3	20	3.3	26	4.3	76	12.7	14	2.3	52	8.7	312	52.0
M(SD)	5.1	2.8	5.0	2.5	5.1	2.5	4.6	2.7	4.8	2.5	5.5	2.6	6.4	2.7	3.4	2.7	6.7	2.3	8.4	2.3

Table 5-2

Number and Percent of Students Assigning Ratings to Ten Occupational Values

	Occupational Values																			
	High Income		Prestige		Independence		Helping Others		Security		Variety		Leadership		Field of Interest		Leisure		Early Entry	
Rating	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
8	109	18.2	76	12.7	86	14.3	138	23.0	153	25.5	70	11.7	53	8.8	301	50.2	30	5.0	24	4.0
7	41	6.8	53	8.8	70	11.7	71	11.8	67	11.2	71	11.8	49	8.2	81	13.5	53	8.8	23	3.8
6	129	21.5	128	21.3	141	23.5	130	21.7	171	28.5	111	18.5	72	12.0	104	17.3	98	16.3	32	5.3
5	67	11.2	68	11.3	85	14.2	73	12.2	63	10.5	91	15.2	77	12.8	44	7.3	104	17.3	20	3.3
4	141	23.5	158	26.3	124	20.7	116	19.3	82	13.7	128	21.3	112	18.7	46	7.7	145	24.2	86	14.3
3	25	4.2	25	4.2	30	5.0	30	5.0	27	4.5	35	5.8	50	8.3	14	2.3	53	8.8	36	6.0
2	52	8.7	65	10.8	47	7.8	34	5.7	24	4.0	76	12.7	110	18.3	7	1.2	83	13.8	134	22.3
1	15	2.5	17	2.8	7	1.2	6	1.0	6	1.0	10	1.7	32	5.3	1	0.2	14	2.3	84	14.0
0	21	3.5	10	1.7	10	1.7	2	0.3	7	1.2	8	1.3	45	7.5	2	0.3	20	3.3	161	26.8
M(SD)	5.0	2.1	4.9	2.0	5.2	1.9	5.6	1.9	5.8	1.9	4.9	2.0	4.1	2.3	6.8	1.6	4.4	1.9	2.4	2.3

A multivariate analysis of variance using the main factors of sex, ethnic group and SES and the ten occupational values as dependent variables was run on the ratings that students assigned to the ten values. Significant main effects were found for sex, ethnic, and SES groups (Wilks Criterion):

Sex: $F_{10,579} = 7.36$ pr $>$ $F = .0001$

Ethnic: $F_{20,1158} = 2.18$ pr $>$ $F = .0020$

SES: $F_{10,579} = 3.06$ pr $>$ $F = .0008$

No significant two-way (or three-way) interactions were found. Further analyses examined the univariate ANOVA for each occupational value and were computed using transformed (standardized) ratings. The ratings for each individual were transformed to standard scores, with a mean of 50 and a standard deviation of 10 (a mean and standard deviation were computed for each individual using the ten ratings, and used for the linear standard score transformation).

Sex main effects were significant for six values: High Income, Helping Others, Variety, Leadership, Field of Interest and Leisure.

Value	F Value (1,588)	Probability of Larger F
High Income	22.91	.0001
Helping Others	33.51	.0001
Variety	13.53	.0003
Leadership	21.69	.0001
Field of Interest	6.11	.0137
Leisure	6.16	.0133

The frequency distribution for ranks, and the mean and standard deviations for the ranks and the transformed ratings are presented for females and males in Table 5-3. As shown in Table 5-3, males gave higher ratings to High Income (mean of 52.8 vs. 49.1), Leadership (mean of 47.5 to 43.5) and Leisure (48.2 vs. 46.5). Female students gave higher ratings to Helping Others (55.8 vs. 51.1), Variety (mean of 51.4 vs. 48.5) and Field of Interest (60.7 vs. 59.0).

These sex differences can be compared with the sex differences in ratings found by Norris, Katz, and Chapman (1978) for a sample of 433 System of Interactive Guidance and Information (SIGI) users in six college settings. For purposes of comparison here, the untransformed ratings are compared with their unrestricted or initial ratings for the youngest of the three age groups they had in their sample. (The youngest age group was 18 and under and had 94 females and 46 males.) These data are given in Table 5-4.

Table 5-3

Number of 300 Females and 300 Males Assigning Ranks to Ten Occupational Values

	Occupational Values																			
	High Income		Prestige		Independence		Helping Others		Security		Variety		Leadership		Field of Interest		Leisure		Early Entry	
Rank	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
1	30	45	21	23	23	17	54	31	18	34	21	14	11	19	113	113	3	3	5	3
2	23	49	37	42	33	33	55	33	29	36	40	20	17	22	51	42	9	17	6	6
3	34	31	46	35	46	37	37	25	33	55	41	32	18	30	23	23	10	24	12	8
4	26	38	40	33	46	34	39	36	50	34	34	33	16	35	17	28	20	21	12	8
5	23	27	32	37	34	34	28	39	53	41	34	35	22	25	34	21	34	30	6	10
6	40	23	34	33	30	41	25	31	32	28	33	31	37	36	16	14	36	44	17	18
7	46	27	37	28	31	46	20	37	25	25	33	33	27	34	14	21	49	36	18	13
8	30	27	23	39	27	27	24	24	25	19	24	40	42	33	14	20	66	47	25	24
9	22	20	18	16	23	23	14	28	25	18	35	41	65	35	10	12	45	54	44	53
10	26	13	12	14	7	8	4	16	10	10	5	21	45	31	8	6	28	24	155	157
Mean Rank	5.5	4.6	4.9	5.1	4.9	5.2	4.1	5.2	5.1	4.6	5.1	5.9	6.9	5.9	3.3	3.5	6.9	6.5	8.4	8.5
SD Rank	2.7	2.8	2.5	2.6	2.5	2.4	2.5	2.7	2.4	2.5	2.6	2.6	2.6	2.7	2.6	2.7	2.1	2.4	2.4	2.2
Mean: Std Rating	49.1*	52.8*	49.0	49.7	51.4	51.5	55.8*	51.1*	54.5	55.3	51.4*	48.5*	43.5*	47.5*	60.7*	59.0*	46.5*	48.2*	37.2	36.4
SD: Std Rating	9.8	9.7	9.8	9.5	9.2	8.5	9.3	10.5	8.1	9.4	9.5	9.7	9.9	10.6	8.0	8.7	8.1	8.3	10.4	10.4

*Sex Differences Significant p < .01.

For the Norris, Katz and Chapman total sample, sex differences were found for six occupational values. Males gave higher mean ratings than females to High Income, Independence, and Leadership. Females gave higher ratings to Helping Others, Field of Interest, and Early Entry. Examining the means for the 18 and under group, the difference between the sexes for Independence is not significant. The other means are all in the same direction as for the total group of males and females.

There is a similarity between the sex differences found in the Norris, Katz and Chapman study and the present study of 11th-grade students. In both sets of data males give higher ratings to the occupational values of High Income and Leadership, and females give higher ratings to the value of Helping Others. The differences occur in one value for which males gave significantly higher ratings in the present study (Leisure) and one to which females gave higher ratings (Variety). The 11th-grade students also did not differ by sex on the ratings given to Early Entry, which did occur in the Norris et al data. However, the present sample does differ from their study in several respects that may explain the data on Early Entry (e.g., many 11th-grade students have not thought realistically about education and work after high school and the earlier tradition of open admissions in the City University of New York may influence the expectation of entering college and delaying entry into the labor force). Also, early entry may have a different meaning for those already enrolled in college.

For the present study, SES groups were compared also. SES main effects were significant for three values:

High Income: $F_{1,588} = 3.82 \text{ pr} > F = .0510$

Helping Others: $F_{1,588} = 3.81 \text{ pr} > F = .0515$

Early Entry: $F_{1,588} = 21.20 \text{ pr} > F = .0001$

	SES			
	Middle		Low	
	M	SD	M	SD
High Income	51.8	9.2	50.2	10.5
Helping Others	52.7	10.2	54.2	10.1
Early Entry	34.9	9.7	38.7	10.8

Low SES group students gave higher ratings to the occupational values of Helping Others and Early Entry; middle SES students gave higher ratings to the value of High Income.

Ethnic group as a main effect was significant for only one occupational value, Leisure:

Table 5-4

Means and Standard Deviations of Occupational Ratings Compared to Norris, Katz and Chapman Sample

	Norris *et al* Sample (18 and under)[1]				11th-grade Students (16-17 years old)[2]			
	F		M		F		M	
Occupational Value	M	SD	M	SD	M	SD	M	SD
High Income	5.42	1.50	6.17	1.26	4.6	2.16	5.48	2.03
Prestige	4.88	1.79	5.11	1.66	4.79	2.03	5.01	1.96
Independence	5.50	1.67	5.48	1.54	5.11	1.99	5.34	1.83
Helping Others	5.59	2.00	4.26	1.81	5.97	1.78	5.27	1.91
Security	6.13	1.63	6.52	1.54	5.72	1.81	5.94	1.92
Variety	5.80	1.61	5.43	1.84	5.06	2.04	4.79	1.90
Leadership	4.45	1.92	5.37	1.49	3.58	2.22	4.53	2.27
Field of Interest	6.32	1.60	5.98	1.54	6.88	1.53	6.65	1.62
Leisure	4.27	1.70	4.54	1.48	4.12	1.93	4.67	1.86
Early Entry	3.67	2.01	3.09	2.12	2.38	2.30	2.45	2.28

[1] N's are 46 males and 94 females

[2] N's are 300 males and 300 females

Leisure: $F_{2,588} = 8.56$ pr ⟩ F = .0002

Ethnic Group

W		B		H	
M	SD	M	SD	M	SD
49.1	8.3	45.8	8.0	47.1	8.1

Students in the black group gave the lowest ratings to this value, and students in the white group gave it a higher rating than the other two groups.

In summary, the occupational values met the criterion described for values: there was a distribution of rankings and ratings assigned to the values. The group differences found were most pronounced for females and males (six values showed significant differences in ratings), somewhat in evidence for SES groups (three values had significant differences in ratings), and barely in evidence for ethnic groups. Only one value showed significant differences among the three ethnic groups represented in this study.

B. Marriage Values

As described in Chapter III, the marriage values were developed for the present study. The eleven marriage values that students rank ordered and rated were: Financial Security; Emotional Support; A Helpmate; A Close Physical Relationship; Prestige; A Normal Life; A Permanent Companion; Children; Your Own Home; Someone to Rely on; and A Feeling of Leadership. As with the occupational values, an important criterion for the marriage values was the ability to evoke different rankings and ratings of importance from students. Tables 5-5 and 5-6 give the number and percent of students assigning ranks from 1 (high) to 10 (low) to each value in order of their importance to the student's decision to marry, and ratings from 0 (least) to 8 (most) important.

Both tables show that each marriage value received all of the possible ranks and ratings but that the distributions are not as rectangular as they are for the occupational values. For example, the percents assigned ranks in Table 5-5 range as low as .7 (four students gave a rank of 10 to Emotional Support). Emotional Support was also very highly ranked with 45.3% of the sample giving it a rank of 1. In Table 5-6 the ratings for Emotional Support were similarly skewed, with one student giving it a rating of 1 and three students a rating of 0 (least important to their decision about marriage). Again the distribution of ratings have smaller standard deviations than the distributions of ranks.

The marriage values ranked and rated highest or most important and low or least important are the same, with one exception, when the means are used to identify the values:

Table 5-5

Number and Percent of Students Assigning Ranks to Eleven Marriage Values

	Marriage Values																					
	Financial Security		Emotional Support		A Helpmate		A Close Physical Relationship		Prestige		A Normal Life		A Permanent Companion		Children		Your Own Home		Someone to Rely On		A Feeling of Leadership	
Rank	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1	54	9.0	272	45.3	18	3.0	60	10.0	13	2.2	22	3.7	101	16.8	14	2.3	15	2.5	25	4.2	10	1.7
2	41	6.8	119	19.8	52	8.7	95	15.8	43	7.2	10	1.7	94	15.7	45	7.5	20	3.3	72	12.0	10	1.7
3	38	6.3	72	12.0	50	8.3	100	16.7	47	7.8	14	2.3	88	14.7	64	10.7	32	5.3	79	13.2	16	2.7
4	36	6.0	47	7.8	54	9.0	110	18.3	41	6.8	10	1.7	86	14.3	87	14.5	23	3.8	83	13.8	22	3.7
5	49	8.2	30	5.0	59	9.8	70	11.7	57	9.5	29	4.8	66	11.0	85	14.2	35	5.8	88	14.7	30	5.0
6	45	7.5	24	4.0	64	10.7	52	8.7	67	11.2	31	5.2	46	7.7	86	14.3	67	11.2	74	12.3	45	7.5
7	55	9.2	12	2.0	80	13.3	36	6.0	65	10.8	47	7.8	38	6.3	62	10.3	87	14.5	58	9.7	62	10.3
8	66	11.0	8	1.3	79	13.2	39	6.5	68	11.3	65	10.8	37	6.2	46	7.7	81	13.5	44	7.3	67	11.2
9	62	10.3	7	1.2	60	10.0	15	2.5	75	12.5	80	13.3	20	3.3	43	7.2	98	10.3	82	5.3	106	17.7
10	67	11.2	4	0.7	52	8.7	18	3.0	71	11.8	105	17.5	15	2.5	39	6.5	91	15.2	30	5.0	109	18.2
11	87	14.5	5	0.8	32	5.3	5	0.8	53	8.8	187	31.2	9	1.5	29	4.8	51	8.5	15	2.5	123	20.5
M(SD)	6.7	3.3	2.5	2.1	6.3	2.7	4.3	2.4	6.8	2.8	8.6	2.7	4.2	2.6	7.4	2.6	7.4	2.6	5.2	2.6	8.3	2.5

Table 5-6

Number and Percent of Students Assigning Ratings to Eleven Marriage Values[1]

	Marriage Values																					
	Financial Security		Emotional Support		A Helpmate		A Close Physical Relationship		Prestige		A Normal Life		A Permanent Companion		Children		Your Own Home		Someone to Rely On		A Feeling of Leadership	
Rating	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
8	80	13.3	244	40.7	58	9.7	145	24.2	39	6.5	39	6.5	169	28.2	109	18.2	81	13.5	156	26.0	21	3.5
7	40	6.7	97	16.2	66	11.0	97	16.2	56	9.3	30	5.0	103	17.2	82	13.7	44	7.3	97	16.2	43	7.2
6	104	17.3	163	27.2	108	18.0	192	32.0	107	17.8	56	9.3	147	24.5	166	27.7	113	18.8	150	25.0	68	11.3
5	65	10.8	40	6.7	67	11.2	71	11.8	72	12.0	51	8.5	65	10.8	92	15.3	73	12.2	68	11.3	63	10.5
4	123	20.5	41	6.8	48	24.7	61	10.2	134	22.3	110	18.3	72	12.0	73	12.2	119	19.8	68	11.3	112	18.7
3	41	6.8	8	1.3	49	8.2	15	2.5	44	7.3	65	10.8	16	2.7	20	3.3	45	7.5	28	4.7	54	9.0
2	71	11.8	3	0.5	65	10.8	12	2.0	79	13.2	86	14.3	20	3.3	30	5.0	71	11.8	20	3.3	93	15.5
1	31	5.2	1	0.2	19	3.2	4	0.7	32	5.3	48	8.0	3	0.5	13	2.2	25	4.2	6	1.0	60	10.0
0	45	7.5	3	0.5	20	3.3	3	0.5	37	6.2	115	19.2	5	0.8	15	2.5	29	4.8	7	1.2	85	14.2
M(SD)	4.4	2.4	6.7	1.4	4.7	2.1	6.1	1.6	4.3	2.4	3.3	2.4	6.1	1.8	5.5	2.0	4.6	2.2	5.9	1.8	3.4	2.3

[1] 1 case missing, 0.2%.

Ranks Most Important	Ratings Most Important	Ranks Least Important	Ratings Least Important
Emotional Support	Emotional Support	A Normal Life	A Normal Life
A Permanent Companion	A Permanent Companion	A Feeling of Leadership	A Feeling of Leadership
A Close Physical Relationship	A Close Physical Relationship	Your Own Home and Children	Prestige

The most important values in deciding to get married, as given in this set of values, for 11th-grade students were: Emotional Support; A Permanent Companion; and A Close Physical Relationship. The least important values were: A Normal Life and A Feeling of Leadership. The data were examined for differences among the main groups in the study.

A multivariate analysis of variance (MANOVA) was carried out using the main factors of sex, ethnic and SES groups and the eleven marriage values as dependent variables. The MANOVA used the ratings from 0 - 8, untransformed.

Significant main effects were found for all three factors:

Sex: $F_{11,577} = 5.48 \ pr > F = .0001$

Ethnic: $F_{22,1154} = 1.61 \ pr > F = .0365$

SES: $F_{11,577} = 2.38 \ pr > F = .0070$

There were no significant two-way or three-way interactions.

Univariate ANOVAs were run using the transformed ratings as separate dependent variables. Sex differences were found for the marriage values of Financial Security, Emotional Support, Prestige, A Normal Life, Your Own Home, and A Feeling of Leadership.

Value	F Value (1,587)	Probability of Larger F
Financial Security	8.27	.0042
Emotional Support	4.73	.0301
Prestige	19.76	.0001
A Normal Life	8.71	.0033
Your Own Home	6.61	.0104
A Feeling of Leadership	4.64	.0317

Table 5-7 presents the frequency distributions for ranks and the means and standard deviations for the transformed ratings (mean = 50, SD = 10). Female students gave higher ratings to the marriage values of Financial Security, Emotional Support, and Prestige. Male students gave higher ratings to A Normal Life, Your Own Home and A Feeling of Leadership.

Table 5-7

Number of 300 Females and 300 Males Assigning Ranks to Eleven Marriage Values

	Marriage Values																					
	Financial Security		Emotional Support		A Helpmate		A Close Physical Relationship		Prestige		A Normal Life		A Permanent Companion		Children		Your Own Home		Someone to Rely On		A Feeling of Leadership	
Rank	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
1	31	23	136	136	11	7	34	26	11	2	8	14	48	53	3	11	3	12	13	12	4	6
2	23	18	70	49	22	30	46	49	22	21	4	6	39	55	17	28	11	9	42	30	4	6
3	23	15	36	36	26	24	41	59	31	16	2	12	50	38	27	37	16	16	39	40	9	7
4	25	11	23	24	23	31	52	58	22	19	5	5	52	34	36	51	12	11	40	43	9	13
5	32	17	13	17	33	26	44	26	28	29	10	19	30	36	34	51	16	19	48	40	11	19
6	23	22	7	17	30	34	28	24	31	36	13	18	22	24	52	34	34	33	36	38	24	21
7	28	27	6	6	45	35	18	18	30	35	17	30	16	22	32	30	49	38	31	27	28	34
8	35	31	5	3	45	34	18	21	31	37	30	35	21	16	31	15	30	51	22	22	33	34
9	33	29	3	4	22	38	8	7	36	39	40	40	10	10	25	18	58	40	13	19	52	54
10	24	43	0	4	24	28	7	11	37	34	57	48	7	8	25	14	53	38	11	19	55	54
11	23	64	1	4	19	13	4	1	21	32	114	73	5	4	18	11	18	33	5	10	71	52
Mean Rank	6.0	7.3	2.3	2.7	6.3	6.3	4.3	4.3	6.5	7.0	9.0	8.1	4.2	4.1	6.3	5.3	7.5	7.3	5.0	5.4	8.4	8.1
SD Rank	3.1	3.3	1.8	2.3	2.7	2.8	2.4	2.4	2.9	2.7	2.4	2.9	2.6	2.6	2.6	2.5	2.5	2.7	2.5	2.6	2.4	2.5
Mean: Std Rating	48.2*	45.5*	59.8*	58.4*	48.0	47.6	56.0	55.8	47.8*	44.3*	39.3*	42.1*	55.9	56.2	52.5	53.3	47.1*	49.0*	54.9	55.4	40.6*	42.3*
SD: Std Rating	10.3	12.5	7.1	8.3	9.8	9.5	8.3	7.4	9.3	9.9	11.3	11.8	8.4	8.9	10.0	9.2	9.5	9.7	8.4	8.6	9.6	10.1

*Sex Differences Significant $p < .05$.

SES main effects were significant for the marriage values of Emotional Support, A Close Physical Relationship, A Normal Life, and Your Own Home:

Value	F Value (1,587)	Probability of Larger F
Emotional Support	13.95	.0002
A Close Physical Relationship	4.82	.0285
A Normal Life	6.79	.0094
Your Own Home	4.06	.0043

	Middle		Low	
Value	M	SD	M	SD
Emotional Support	60.3	7.1	57.9	8.2
A Close Physical Relationship	56.6	7.4	55.2	8.3
A Normal Life	39.3	10.6	42.1	12.4
Your Own Home	47.3	9.4	48.8	9.9

Middle SES students gave higher ratings to the marriage values of Emotional Support and A Close Physical Relationship. Students in the low SES group gave higher ratings to the values Your Own Home and A Normal Life.

Ethnic group, as a main effect, was significant for two marriage values, Financial Security and Children.

Value	F Value (2,587)	Probability of Larger F
Financial Security	5.26	.0054
Children	4.74	.0090

	White		Black		Hispanic	
	M	SD	M	SD	M	SD
Financial Security	46.2	11.3	48.9	11.3	45.4	11.6
Children	53.0	9.5	51.4	10.2	54.3	8.9

Students in the black group gave higher ratings to Financial Security than did the other two groups. Hispanic students gave higher ratings to the marriage value of Children than did the other two groups.

In summary, the marriage values met the criterion described for the values, but not as satisfactorily as did the occupational values. While there was a full distribution of rankings and ratings for all possible numbers for each marriage value, the distributions were not as rectangular as they were generally for the occupational values. Nevertheless, students did rank and rate the values and some systematic group differences were found. Again, the group differences were most evident for females and males and six values showed significant differences in ratings. Four values were rated differently by the low and middle SES groups, and two values were also rated differently by the three ethnic groups.

C. Parenthood Values

Students rank ordered and rated 12 parenthood values: A Sense of Accomplishment; A Sense of Pride; Variety; Friendship; The Respect of Others; A Stable Marriage; A Chance to Express Love; Confidence as a Man or Woman; Joy; Future Security; A Tie to the Future; A Sense of Importance. As with the directions for the occupational and marriage values, students were told, "These cards describe values or satisfactions that people might consider important in deciding to have children. Read through them and think about which ones are important to you." They were then asked to rank order, from 1 high to 12 low, the values and then to rate them on the scale from 0 least important to 8 greatly important.

The distributions of ranks assigned and ratings given to each value are presented in Tables 5-8 and 5-9 for the total sample. Each parenthood value, with one exception, also received a complete set of possible ranks. The exception was A Chance to Express Love, which did not receive any ranks of 12, the lowest possible rank. The value did, however, receive all possible ratings, from 8 through 0. The distributions of ranks and ratings for the parenthood values varied in their approximation to a rectangular distribution more so than the other two sets of values. For example, the ratings for several of the parenthood values were very skewed: The values of Friendship, A Chance to Express Love, and Joy had high percentages of students giving them a rating of 8.

The parenthood values ranked and rated highest or most important, and low or least important, are the same when the means are used to identify the values:

Most Important	Least Important
A Chance to Express Love	The Respect of Others
Joy	Confidence as a Man or Woman
Friendship	A Tie to the Future

The most important values in deciding to have children, within the present set of values, for 11th-grade students were A Chance to Express Love and Joy. The least important values were The Respect of Others and Confidence as a Man or Woman, as a need or satisfaction in deciding to become a parent. Although these values were least important, it should be remembered that small groups of students gave them the highest possible ranks and the definitions apparently have meaning for some students.

Table 5-8

Number and Percent of Students Assigning Ranks to Twelve Parenthood Values

	Parenthood Values																							
	Accomplishment		A Sense of Pride		Variety		Friendship		Respect of Others		A Stable Marriage		A Chance to Express Love		Confidence as a Man/Woman		Joy		Future Security		A Tie to the Future		A Sense of Importance	
Rank	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1	109	18.2	53	8.8	17	2.8	87	14.5	4	0.7	28	4.7	151	25.2	9	1.5	118	19.7	4	0.7	12	2.0	7	1.2
2	61	10.2	93	15.5	50	8.3	101	16.8	8	1.3	18	3.0	116	19.3	9	1.5	112	18.7	11	1.8	15	2.5	8	1.3
3	49	8.2	78	13.0	72	12.0	97	16.2	10	1.7	33	5.5	97	16.2	22	3.7	92	15.3	15	2.5	21	3.5	13	2.2
4	52	8.7	92	15.3	96	16.0	92	15.3	14	2.3	36	6.0	65	10.8	21	3.5	59	9.8	22	3.7	30	5.0	19	3.2
5	72	12.0	87	14.5	76	12.7	53	8.8	13	2.2	48	8.0	54	9.0	26	4.3	56	9.3	28	4.7	40	6.7	49	8.2
6	77	12.8	65	10.8	62	10.3	50	8.3	25	4.2	35	5.8	51	8.5	34	5.7	58	9.7	31	5.2	51	8.5	60	10.0
7	58	9.7	48	8.0	64	10.7	34	5.7	28	4.7	60	10.0	31	5.2	41	6.8	29	4.8	57	9.5	80	13.3	71	11.8
8	38	6.3	27	4.5	60	10.0	33	5.5	45	7.5	70	11.7	9	1.5	54	9.0	26	4.3	63	10.5	89	14.8	84	14.0
9	28	4.7	21	3.5	56	9.3	22	3.7	80	13.3	62	10.3	17	2.8	69	11.5	20	3.3	79	13.2	69	11.5	78	13.0
10	23	3.8	19	3.2	17	2.8	19	3.2	80	13.3	73	12.2	6	1.0	101	16.8	18	3.0	81	13.5	76	12.7	91	15.2
11	20	3.3	10	1.7	18	3.0	9	1.5	117	19.5	77	12.8	3	0.5	96	16.0	6	1.0	102	17.0	68	11.3	73	12.2
12	13	2.2	7	1.2	12	2.0	3	0.5	176	29.3	60	10.0	--	---	118	19.7	6	1.0	107	17.8	49	8.2	47	7.8
M(SD)	5.0	3.1	4.7	2.6	5.7	2.7	4.2	2.6	9.7	2.5	7.7	3.2	3.4	2.3	8.9	2.8	4.0	2.7	8.9	2.7	7.9	2.8	8.2	2.5

Table 5-9

Number and Percent of Students Assigning Ratings to Twelve Parenthood Values[1]

	Parenthood Values																							
	Accomplishment		A Sense of Pride		Variety		Friendship		Respect of Others		A Stable Marriage		A Chance to Express Love		Confidence as a Man/Woman		Joy		Future Security		A Tie to the Future		A Sense of Importance	
Rating	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
8	94	15.7	100	16.7	69	11.5	214	35.7	29	4.8	90	15.0	284	47.3	44	7.3	280	46.7	60	10.0	46	7.7	63	10.5
7	66	11.0	70	11.7	71	11.8	117	19.5	29	4.8	55	9.2	115	19.2	43	7.2	112	18.7	47	7.8	68	11.3	51	8.5
6	131	21.8	165	27.5	141	23.5	151	25.2	63	10.5	108	18.0	129	21.5	74	12.3	125	20.8	87	14.5	100	16.7	122	20.3
5	80	13.3	97	16.2	120	20.0	49	8.2	57	9.5	61	10.2	40	6.7	76	12.7	36	6.0	69	11.5	94	15.7	77	12.8
4	138	23.0	102	17.0	118	19.7	37	6.2	117	19.5	82	13.7	21	3.5	101	16.8	34	5.7	121	20.2	127	21.2	118	19.7
3	35	5.8	30	5.0	32	5.3	15	2.5	57	9.5	37	6.2	3	0.5	49	8.2	5	0.8	50	8.3	66	11.0	44	7.3
2	35	5.8	22	3.7	45	5.8	10	1.7	126	21.0	71	11.8	2	0.3	92	15.3	6	1.0	79	13.2	50	8.3	52	8.7
1	12	2.0	8	1.3	10	1.7	3	0.5	39	6.5	35	5.8	2	0.3	33	5.5	1	0.2	34	5.7	24	4.0	37	6.2
0	9	1.5	6	1.0	4	0.7	4	0.7	83	13.8	61	10.2	4	0.7	87	14.5	1	0.2	53	8.8	25	4.2	36	6.0
M(SD)	5.2	1.9	5.5	1.8	5.2	1.7	6.5	1.6	3.4	2.3	4.5	2.3	6.9	1.4	3.7	2.4	6.9	1.4	4.2	2.3	4.6	2.1	4.5	2.2

[1] 1 case missing, .2%.

The rating data were examined for group differences. A MANOVA showed significant sex, ethnic and SES main effects:

$$\text{Sex: } F_{11,577} = 7.41 \text{ pr} > F = .0001$$

$$\text{Ethnic: } F_{20,1154} = 1.78 \text{ pr} > F = .0117$$

$$\text{SES: } F_{11,577} = 2.50 \text{ pr} > F = .0034$$

There were no significant two-way or three-way interactions in the MANOVA.

Univariate ANOVAs were calculated using the transformed ratings of the parenthood values as separate dependent variables. Sex differences were found for the parenthood values of Variety, Friendship, Respect of Others, A Stable Marriage, A Chance to Express Love, and A Tie to the Future:

Value	F Value (1,587)	Probability of Larger F
Variety	25.22	.0001
Friendship	9.99	.0017
Respect of Others	6.34	.0121
A Stable Marriage	34.91	.0001
A Chance to Express Love	11.59	.0007
A Tie to the Future	3.84	.0506

Table 5-10 presents the frequency distributions for ranks and the means and standard deviations for the transformed ratings (mean = 50 and SD = 10). Female students gave higher ratings to the parenthood values of Variety, Friendship, and A Chance to Express Love. Male students gave higher ratings to the values of Respect of Others, A Stable Marriage, and A Tie to the Future (although Respect of Others received low ratings from both females and males).

SES main effects were significant for the parenthood values of Variety, Friendship, Confidence as a Man or Woman, Joy, and A Sense of Importance:

Value	F Value (1,587)	Probability of Larger F
Variety	4.34	.0376
Friendship	6.37	.0019
Confidence as a Man or Woman	5.65	.0178
Joy	13.69	.0002
A Sense of Importance	6.29	.0124

Table 5-10

Number of 300 Females and Males Assigning Ranks to Twelve Parenthood Values

Parenthood Values

	Accomplishment		A Sense of Pride		Variety		Friendship		Respect of Others		A Stable Marriage		A Chance to Express Love		Confidence as a Man/Woman		Joy		Future Security		A Tie to the Future		A Sense of Importance	
Rank	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
1	44	65	23	30	8	9	51	36	2	2	10	18	88	63	6	3	62	56	0	4	2	10	3	4
2	31	30	37	56	31	19	51	50	5	3	5	13	60	56	4	5	65	47	4	7	5	10	4	4
3	26	23	37	41	37	35	60	37	3	7	8	25	53	44	11	11	45	47	7	8	7	14	5	8
4	26	26	47	45	59	37	44	48	4	10	15	21	31	34	13	8	30	29	11	11	11	19	8	11
5	41	31	45	42	42	34	28	25	5	8	24	24	22	32	15	11	23	33	12	16	25	15	18	31
6	40	37	43	22	40	22	21	29	9	16	13	22	21	30	21	13	32	26	8	23	24	27	29	31
7	38	20	27	21	25	39	14	20	13	15	22	38	14	17	23	18	14	15	31	26	40	40	40	31
8	16	22	15	12	22	38	12	21	21	24	40	30	3	6	21	33	9	17	40	23	56	33	44	40
9	14	14	8	13	21	35	8	14	43	37	32	30	5	12	43	26	8	12	46	33	30	39	42	36
10	9	14	13	6	6	11	9	10	43	37	37	36	2	4	53	48	5	13	46	35	31	45	46	45
11	7	13	5	5	7	11	2	7	62	55	48	29	1	2	41	55	3	3	47	55	42	26	35	38
12	8	5	0	7	2	10	0	3	90	86	46	14	0	0	49	69	4	2	48	59	27	22	26	21
Mean Rank	5.1	4.9	4.8	4.5	5.2	6.1	3.8	4.6	9.8	9.5	8.4	6.9	3.1	3.7	8.6	9.2	3.8	4.2	9.0	8.8	8.1	7.6	8.3	8.0
SD Rank	2.9	3.2	2.5	2.7	2.4	2.8	2.4	2.8	2.4	2.6	3.0	3.1	2.1	2.4	2.9	2.8	2.6	2.8	2.5	2.9	2.6	2.9	2.4	2.6
M: Std Rating	50.7	50.4	52.1	52.1	51.7*	47.9*	58.5*	56.3*	39.6*	41.6*	44.5*	49.8*	61.0*	59.2*	43.4	42.5	60.2	59.2	45.1	45.6	46.1*	47.6*	47.0	47.7
SD: Std Rating	8.5	9.5	7.6	9.1	8.4	9.7	7.9	9.3	9.3	9.6	10.6	10.8	6.4	7.0	9.8	10.4	7.6	8.0	8.9	10.9	8.9	10.0	9.0	8.8

*Sex Differences Significant p < .05.

Value	Middle		Low	
	M	SD	M	SD
Variety	50.6	8.6	49.0	9.9
Friendship	58.3	8.3	56.5	9.1
Confidence as a Man or Woman	42.0	9.6	43.9	10.5
Joy	60.9	7.0	58.5	8.4
A Sense of Importance	46.5	8.7	48.3	9.0

Middle SES students gave higher ratings to Variety, Friendship, and Joy. Students in the Low SES group gave higher ratings to the parenthood values of Confidence as a Man or Woman and A Sense of Importance.

Examination of the significant main effects for the ethnic factor showed significant differences between the group means for two values, A Sense of Pride and A Chance to Express Love.

Value	F Value (2,587)	Probability of Larger F
A Sense of Pride	3.23	.0402
A Chance to Express Love	2.93	.0543

	White		Black		Hispanic	
	M	SD	M	SD	M	SD
A Sense of Pride	52.0	8.5	53.2	8.1	51.1	8.5
A Chance to Express Love	60.5	7.4	59.2	6.9	60.6	5.2

Students in the black group gave the highest rating to A Sense of Pride and students in the white and Hispanic groups gave the higher mean rating to A Chance to Express Love.

For the parenthood values, as for the occupational and marriage values, the majority of differences were found for females and males. Six values showed differences for females and males. Five values had differences for SES groups, and two of the twelve values had different mean ratings for the three ethnic groups.

D. Factor Analyses of the Values

From the analyses of the ranking and rating of the values, it was found that students were able to rank and rate each of the three value sets, and that meaningful interpretations were possible for the group differences found within each set. However, a further question remains. Do the different value sets tap the same dimensions or factors? If the occupational, marriage and parenthood values were found to be accounted for by an underlying structure with only a few dimensions, then the addition of the marriage and parenthood values to research studies on career awareness and career decision making would not be useful or parsimonious. If, on the other hand, the values have an underlying factor structure that indicates a more diverse set of values or attitudes are being tapped, then both researchers and others interested in sex roles and career decision making may find more than one of the value sets to be meaningful. In this section we examine the question of the number of factors or dimensions that appear to underlie all the values--the 10 occupational values, the 11 marriage values and the 12 parenthood values.

Since the analyses of group differences found sex differences in ratings of 18 of the 33 values, the factor analyses were carried out for the total sample and separately for each sex. Appendix 5 reports the 14 significant factors (using a criterion of an eigen value of 1.00 or higher) for each of the three factor analyses, and gives the values with loadings of .3 or better for the factors (loadings between .2 and .3 are reported also). In this section a few selected factors are presented to illustrate that there are a number of dimensions that underlie the occupational, marriage and parenthood values. There are some factors which load primarily with occupational or marriage or parenthood values, but there are other factors that indicate an overlap in the values being rated in the three sets.

Tables 5-11 and 5-12 present loadings of selected values on factors from the three factor analyses--female, male, total group. These values and factors were selected to illustrate the similarities and differences between the female and male analyses in terms of alternative patterns of loadings (.3 or higher) for values. Table 5-11 shows values with similar factor loadings in the three factor analyses. Table 5-12 shows sex differences in the factor loadings for selected values in the three factor analyses.

Table 5-11 gives the factors and loadings for the occupational value of Prestige and the marriage value of Prestige. The definitions of these values are:

Prestige: An Occupational Value

> If people respect you, look up to you, listen to your opinions, or ask for your help with community affairs, you are a person with PRESTIGE. Of course, PRESTIGE can be gained in several ways. But in present-day America, occupation is usually the key to PRESTIGE. Rightly or wrongly, we respect some occupations more than others.

Table 5-11

Selected Values with Similar Factor Loadings in Female, Male and Total Samples

Female[1]			Male[1]			Total[1]		
Value Area[2]	Value	Loading	Value Area	Value	Loading	Value Area	Value	Loading
	(Factor 4)			(Factor 12)			(Factor 2)	
O	Prestige	.88	O	Prestige	-.60	O	Prestige	-.79
M	Prestige	.55	M	Prestige	-.80	M	Prestige	-.56
O	Variety	-.30	M	Children	.33	O	Variety	.44
	(Factor 5)			(Factor 5)			(Factor 7)	
P	A Sense of Accomplishment	-.74	P	A Sense of Accomplishment	.77	P	A Sense of Accomplishment	.76
P	A Sense of Pride	-.74	P	A Sense of Pride	.75	P	A Sense of Pride	.75
P	Variety	-.34	P	A Stable Marriage	-.34			
P	A Chance to Express Love	.41						
P	A Stable Marriage	.31						

[1] N_F = 299; N_M = 299; N_T = 598. [2] O = Occupational, M = Marriage, P = Parenthood

Table 5-12

Sex Differences in Factor Loadings of Selected Values in Female, Male and Total Samples

Female			Male			Total		
Value Area	Value	Load-ing	Value Area	Value	Load-ing	Value Area	Value	Load-ing
	(Factor 3)			(Factor 4)			(Factor 3)	
O	High Income	-.74	O	High Income	.78	O	High Income	-.71
O	Helping Others	.31	O	Helping Others	-.76	O	Helping Others	.71
O	Variety	.33				O	Security	-.33
M	Financial Security	-.72						
M	Children	.38						
M	Permanent Companion	.35						
	(Factor 12)			(Factor 8)			(Factor 12)	
O	Leisure	-.71	O	Independence	.70	O	Independence	.87
P	A Sense of Importance	.54	O	Leisure	-.70	O	Leisure	-.31
O	Helping Others	.38						
O	Field of Interest	.34						
	(Factor 13)						(Factor 8)	
O	Independence	-.74				O	Leisure	-.52
O	Helping Others	.45				M	A Close Physical Relationship	-.52
M	Prestige	-.45				P	A Sense of Importance	.67
M	Children	.33				P	Variety	-.36

Prestige: A Marriage Value

> Marriage can give you prestige.
>
> When people get married, they can feel proud of their partners. And they can feel successful because of their partner's successes.

These two values are consistently part of a bipolar factor for the females, males, and total sample, defining one end of a factor. In the second half of Table 5-11 the two parenthood values of A Sense of Accomplishment and A Sense of Pride function similarly. The two definitions are:

A Sense of Accomplishment: A Parenthood Value

> Being a parent can give you a sense of accomplishment.
>
> In raising a child you take on responsibilities and meet many challenges. When you see that you have done a good job it gives you a sense of accomplishment.

A Sense of Pride: A Parenthood Value

> Being a parent can give you a sense of pride.
>
> You can feel pride through your children's achievement. Your children can be successful in life.

The two parenthood values cluster together and for the female and male samples again define one end of a bipolar factor. There are, however, two additional parenthood values that load .3 or higher on the factor for the female sample (Variety and A Chance to Express Love).

The "dissimilar" factors shown in Table 5-12 are examples of factors where the factor interpretation is very direct for the males, and less clear-cut or, rather, involving apparently different interpretations on the part of the female students responding. The occupational values of High Income and Helping Others have high loadings on one bipolar factor for the 11th-grade males (and in the total sample). A preference for a high income as a characteristic of a desired occupation is accompanied by a low rating for an occupation that involves helping others. However, for the female students there is an overlap with several of the marriage values in defining the bipolar factor. The marriage value of Financial Security accompanies the weighting of High Income, and the occupational value of Helping Others is accompanied by the marriage values of Children and A Permanent Companion. A similar phenomenon occurs for the factors in the second half of Table 5-12, perhaps emphasizing again in the factor structure of these values the conditional nature of women's career decision making and the difficulty of separating these values that accompany traditionally different sex roles for men and women.

The second half of Table 5-12 shows the loading of two occupational values, Independence and Leisure, on one factor for the male students. For females, the highest loadings of these two occupational values occur on separate factors (factors 12 and 13).

For males Independence and Leisure define opposite ends of a single factor. A high preference for Independence as part of the characteristic of an occupation is accompanied by a low preference for an occupation that would give the student free time for important satisfactions that are not part of a job. For females, a low preference for the Leisure value is accompanied by a preference for one of the parenthood values--A Sense of Importance as a satisfaction in deciding to become a parent--and some preferences for Helping Others and Work in Your Main Field of Interest. A low preference for the occupational value of Independence (factor 13) is accompanied by a low preference for Prestige (through marriage) and preferences for Helping Others as part of an occupation and Children, as a satisfaction in or part of the decision to become married.

The factors for the total sample (factors 8 and 12) reflect the difference in the factor structures for females and males. Factor 12 has only the two occupational values of Independence and Leisure, and they are bipolar, but the Leisure factor loading is lower (-.31) than on the male factor (-.70). Factor 8 reflects part of factor 12 of the female analyses. For these values it is important to examine the factor analyses separately, since they appear to reflect differences in the female and male students in the meaning and associations among the values.

In summary, the factor analyses examined the underlying dimensions or factors for all 33 values--occupational, marriage, and parenthood values. There are common meanings between the value sets and also unique meanings, where a factor may consist of values from only one of the three sets. There are also differences in the associations among values for females and males that are reflected in the factor structure when examined separately for the two groups. These differences suggest that any research studies using the three value sets should analyze data separately by sex before combining females and males in one total sample for analyses.

One particularly interesting finding is that several of the occupational values formed bipolar factors for males, but did not cluster as uniquely for females. For females, the occupational values were always combined with marriage or parenthood values. One interpretation of this finding is that it reflects the traditional separation of sex roles in our culture: males are identified with occupational roles, and females are identified with homemaking and motherhood. These traditional separations of roles for adults by sex may mean that males more readily separate the values satisfied by occupations from those satisfied in marriage and parenthood. Females have more difficulty in this separation, as seen, for example, in the loading of the occupational value, Helping Others, on several factors. This interpretation is purely speculation, at this stage, and in need of further study.

E. The Relation of Values to Educational and Occupational Decisions

Along with knowing that the values in the areas of occupations, marriage and parenthood have intrinsic interest, particularly since they are not highly overlapping, it is also important to understand their relationship to career decision-making variables. For the students in the 11th grade, the career decision-making variables of concern are their plans or expectations for education and work. These plans and expectations have been assessed in the present study by questions about the student's level of education, How much education do you think you will have? and about the occupation which the student is most likely to do. These two variables, level of education and level of occupation, are examined in relationship to the three sets of values in this section. Level of education is analyzed first, then the level of occupational aspiration.

Level of Educational Aspiration

As described earlier, there were no sex differences in educational aspirations. Discriminant analysis is used here to examine whether groups formed by level of educational aspiration are differentiated by the values. That is, do students with different levels of educational aspirations also respond differently to the three sets of values?

Since these analyses with the values are largely exploratory, the discriminant analyses were carried out for the total sample, then for females and males separately. Only the sex groups are analyzed separately; many of the values in each set showed sex differences. The analyses were not conducted separately for SES and ethnic groups because fewer values showed differences for these groups. As will be seen below, the analyses also defined the educational groups differently in order to see the maximum discrimination between groups that might be attained in these exploratory analyses.

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Total Sample.[1] The groups formed for the discriminant analysis of the total sample were:

	N
Group 1 - Graduate from two-year college (or less)	134
Group 2 - Graduate from a four-year college	297
Group 3 - Professional or graduate school	157
Total	588

The results are given separately for each of the three value sets.

For the occupational values, the two discriminant functions were significant (Wilks' Lambdas of .76 and .96, X^2 p = .000 and .002), and 50% of the "grouped" cases were correctly classified. The three main values for the discriminant functions were:

Function 1	Function 2
-1.03 Helping Others	-.48 Variety
- .97 Leadership	-.75 Field of Interest
- .93 Independence	-.36 Leadership

The centroids (mean discriminant scores) for each of the groups on the discriminant functions were:

	Function 1	Function 2
Group 1	.72	-.13
Group 2	-.11	.19
Group 3	-.40	-.26

Group 1 students with the lower (for this sample) educational aspirations, were likely to rate Helping Others, Leadership and Independence and Variety lower than the other two groups. Students in Group 3, with the highest aspirations, were likely to rate Helping Others, Leadership and Independence somewhat higher, and less likely to rank Variety as high as Group 2 students.

For the marriage values, the two discriminant functions were significant (Wilks' Lambdas of .87 and .95, X^2 p = .000 for both), but only 38% of the "grouped" cases were correctly classified. The findings must again be considered as exploratory. The main values for the discriminant functions were:

Function 1	Function 2	Function 2 (con'd.)
.77 A Normal Life	-1.1 Prestige	-.96 Children
.63 Financial Security	-1.0 Financial Security	-.96 Someone to Rely on
.62 Your Own Home	-.96 A Helpmate	

---

[1] Analyses for the total sample were first reported in Tittle, C.K., Denker, E.R., and Block, J. Sex role values, occupational values, and career decisions. Paper presented at the annual meeting of the American Psychological Association, Toronto, Canada, August, 1978.

The centroids of the groups on the discriminant functions were:

	Function 1	Function 2
Group 1	.44	.09
Group 2	-.03	-.01
Group 3	-.32	-.06

Group 1 students with lower educational aspirations were more likely to rate higher the marriage values of A Normal Life, Financial Security, and Your Own Home. Group 3, with the highest educational aspirations, were likely to give lower ratings to these values.

For the parenthood values, the two discriminant functions were significant (Wilks' Lambdas of .84 and .94, X^2 p = .000 for both), but only 38% of the "grouped" cases were correctly classified. The findings must again be considered exploratory. The main parenthood values for the discriminant functions were:

Function 1	Function 2
.94 A Sense of Pride	1.18 A Stable Marriage
.93 A Tie to the Future	1.04 Future Security
.89 Joy	1.00 Confidence as a Man or Woman
.80 Friendship	.81 Respect of Others

The centroids of the groups on the discriminant functions were:

	Function 1	Function 2
Group 1	-.39	.22
Group 2	.00	.02
Group 3	.33	-.23

Group 1 students, with the lower educational aspirations, were likely to give the highest ratings to A Stable Marriage, Future Security, Confidence as a Man or Woman, and Respect of Others. Group 3, with graduate and professional school goals, were more likely to give higher ratings to A Sense of Pride, A Tie to the Future, Joy, and Friendship, than were Group 1 students.

In summary, there are occupational, marriage, and parenthood values that appear to discriminate among groups with different levels of educational aspirations. Group 2 was not well classified in any of the discriminant analyses, perhaps as a function of the level of educational aspiration measure or the optimism of some students in putting themselves in the category of "graduate from a four-year college." As might be expected, the occupational values provided the "best" discrimination since 50% of the groups were correctly classified with the values, and lower percentages with the marriage and parenthood values (38% in each set).

Analyses by Sex. Discriminant analyses were computed for educational groups separately for the female and male 11th-grade students. Although the analyses of the three educational groups were carried out, they are not reported here since the between group discrimination improved only slightly over that reported for the total sample analysis. Instead, more extreme groups were formed to examine the values that might discriminate groups that were more clearly differentiated at the beginning. The two groups were:

		Number of females	Number of males
Group 1:	Codes 2-5, finish high school + technical school after high school + graduate from a two-year college + some college but less than four years	71	63
Group 2:	Code 7, professional or graduate school	78	80
	Total	149	143

As discussed below, the percent of the actual groups correctly classified increased by this procedure and in an exploratory analyses can add to an understanding of the values and these career-related plans. All the analyses had Wilks' Lambda values for which X^2 were significant ($p < .05$).

The occupational values which provide the best discrimination between the educational groups (that is, are weighted most heavily on the discriminant function) differ somewhat for females and males. The major values on the discriminant functions and the group means on the discriminant function are shown in Table 5-13. For females the group with the highest educational aspirations, for professional or graduate school, will be more likely to give a low rating to the values Early Entry, Variety, High Income and Security. They are more likely to give higher ratings to the values of Independence and Leadership than are female students who do not plan to graduate from a four-year college. The percent of "grouped" cases correctly classified was 75.2%.

For males the group with the highest educational aspirations is also likely to give a low rating to Early Entry, but will also give lower ratings to the values of Helping Others and Security than will males with lower educational goals. The male students with higher educational goals will also tend to give higher ratings to the values of Variety and Field of Interest. For males the percent of "grouped" cases correctly classified was 75.5%.

Although there is some overlap in the occupational values which separate groups with two different educational goals (Early Entry and Security), there are also several values which are discriminating for only one sex (High Income, Helping Others, Independence, Leadership, and Field of Interest) and one value which is different in sign (Variety), apparently having a different implication for the sexes in respect to amount of education planned.

Table 5-13

Weights and Group Means for the Discriminant Function for Occupational Values: Education Groups

Female		Male	
Value	Standardized Discriminant Function Coefficients	Value	Standardized Discriminant Function Coefficients
Early Entry	.86	Early Entry	.79
Variety	.37	Helping Others	.23
High Income	.22	Security	.22
Security	.22	Variety	-.16
Independence	-.19	Field of Interest	-.41
Leadership	-.21		
	Centroids of Groups in Reduced Space		
Group 1	.5472	Group 1	.6268
Group 2	-.4978	Group 2	-.4935

The marriage values were also examined for their ability to discriminate between groups with different educational goals, although there is no a priori reason to expect the marriage values to provide high discrimination. The major values and the group means on the discriminant function are shown in Table 5-14. The percent of "grouped" cases correctly classified differed for females and males. For females, 62.4% were correctly classified; for males, 74.1% were correctly classified. These results are also reflected in the group means or centroids, where the closer means for females indicates that the groups with different educational goals are not as well discriminated as are the males.

For females with lower educational goals there was a tendency to give somewhat higher ratings to the values of Your Own Home and A Normal Life. Female students with higher educational goals were likely to give higher ratings to the marriage values of A Helpmate, Security and Children. The male students with professional education goals were likely to give lower ratings to the values of A Normal Life, and higher ratings to Emotional Support, A Permanent Companion, Children, and A Helpmate as values in the decision to get married than were male students with lower educational goals. It is interesting to note again that the female students with different educational goals were not well differentiated by the marriage values, perhaps reflecting a more common perception of marriage for women, regardless of educational goals, than the perceptions that men have.

Table 5-14

Weights and Group Means for the Discriminant Function for Marriage Values: Education Groups

Female		Male	
Value	Standardized Discriminant Function Coefficients	Value	Standardized Discriminant Function Coefficients
Your Own Home	-1.31	A Normal Life	.41
A Normal Life	-1.23	Emotional Support	-.49
Children	-1.10	A Permanent Companion	-.41
Security	-1.00	Children	-.34
A Helpmate	- .97	A Helpmate	-.25
	Centroids of Groups in Reduced Space		
Group 1	-.2582	Group 1	.5257
Group 2	.2334	Group 2	-.4141

The parenthood values were also examined for their ability to discriminate between the groups with different educational aspirations. The parenthood values provided similar discrimination between groups to the occupational values. The percent of "grouped" cases correctly classified was 71.8% for the female students and

74.8% for the male students. The weights for values and the group means are presented in Table 5-15. The values which the women with higher educational goals tended to rate higher were those of Joy, A Sense of Accomplishment, and Friendship, as needs or satisfactions to consider in deciding to become a parent. Women with lower educational goals tended to rate the values of A Stable Marriage and Future Security more highly.

Table 5-15

Weights and Group Means for the Discriminant Function for Parenthood Values: Education Groups

Female		Male	
Value	Standardized Discriminant Function Coefficients	Value	Standardized Discriminant Function Coefficients
Joy	-.64	A Chance to Express Love	-.10
A Sense of Accomplishment	-.38	A Stable Marriage	.77
Friendship	-.24	A Sense of Importance	.66
Future Security	.34	Confidence as a Man or Woman	.59
A Stable Marriage	.31	Future Security	.47
		Respect of Others	.43
Centroids of Groups in Reduced Space			
Group 1	.4927	Group 1	.5552
Group 2	-.4486	Group 2	-.4366

The values that men with lower educational goals tended to rate more highly (than men with goals of professional education) were A Stable Marriage, A Sense of Importance, Confidence as a Man or Woman, Future Security, and Respect of Others as values to be considered in making the decision to become a parent. Two goals, Future Security and A Stable Marriage, overlapped both analyses and tended to be rated higher by students of both sexes with the lower educational goals of the two groups.

Both the occupational and parenthood values provided better discrimination between the two educational groups than did the marriage values. Whether this is because marriage tends to have more common meanings for all women or because the marriage values are not well specified cannot be answered with the data at hand.

Level of Occupational Aspiration

Roe (1956), described earlier, developed a two-way classification of occupations. One dimension defines the type of occupational group (Service, Business Contact, Organization, and so on) and the second dimension is the Level of occupation (e.g., in Service, Level 1 is therapist, counselor; Level 2 is social worker; Level 3 is Detective, City Inspector; Level 4 is barber, practical nurse; Level 5 is waiter, taxi driver; and Level 6 is elevator operator). Using the Roe classification, two groups were formed based on the level of occupation given by students in response to the question, What occupation (job) do you think you will actually do? Discriminant analysis was again used to examine the relationship between each of the value sets and the higher (Levels 1 and 2) and lower (Levels 3-6) groups on occupational level. These results are described here for the total sample, females only, and males only, for all of the values.

Total sample. The discriminant function for the occupational values was significant (Wilks' Lambda = .89, X^2 p = .000). The percent of grouped cases correctly classified was 63%. The major values on the discriminant function were: -1.2 Helping Others, -.85 Field of Interest, -.83 Leisure and -.80 Variety. The group means on the function were:

Group 1	-.25	N = 333	(Levels 1 and 2)
Group 2	.36	N = 235	(Levels 3 - 6)

The group (1) with higher levels of occupational aspirations tended to rate the values of Helping Others and Work in Your Field of Interest higher than did Group 2.

The discriminant function was significant for the marriage values also (Wilks' Lambda = .96, X^2 p = .006). The percent of grouped cases correctly classified was 60%. The major marriage values on the discriminant function were -.64 Emotional Support, -.36 A Permanent Companion, and -.31 Children. The group means on the function were:

Group 1	-.17	N = 333
Group 2	.25	N = 234

There is a tendency for students with higher levels of occupational aspiration to rate these values higher in thinking about deciding to get married than do students with lower levels of occupational aspirations.

The discriminant function for the parenthood values was significant (Wilks' Lambda = .96, X^2 p = .01). The percent of grouped cases correctly classified was 52%. The groups are not well separated as shown by the centroids on the discriminant function:

Group 1	.05	N = 332
Group 2	-.07	N = 235

The major values on the discriminant function are:

A Stable Marriage	1.13
Future Security	1.09
Confidence as a Man or Woman	1.08
A Sense of Pride	1.07

There is a tendency for students with higher occupational aspirations to rate these values higher than the group with lower occupational aspirations. But these findings, while stable, are suggestive, since the groups are not well discriminated.

Analyses by Sex. The separate analyses by sex do not show much improvement over the discriminant analyses for the total sample for level of occupational aspiration. Tables 5-16, 5-17, and 5-18 present the summary data for these discriminant analyses. The data show more overlap and fewer differences between females and males in terms of the values in each set that provided what differentiation there was between groups formed on the basis of level of occupational aspiration. The lack of discrimination between the groups may be due to several factors. The factors include the ages of the students and perhaps an accompanying lack of serious consideration of careers because they are not perceived as immediate decisions. Alternatively, the measure of level of occupational aspiration may not be well-suited for this age group or may not provide sufficient differentiation between the levels of aspiration. Further research may clarify the relative importance of these possible factors, since the values do indeed permit reasonable classification of students with widely disparate educational goals.

F. Involvement Level and Job-Child Scales

Two scales were used to examine the preference students had about their level of commitment to the areas of having a job and raising children and their orientation or emphasis toward one or the other of these activities. Involvement Level (IL) and Job-Child (JC) Scales were developed by Lolagene Coombs (in press) and their development was described in Chapter III. Responses to the IL and

Table 5-16

Weights and Group Means for the Discriminant Function for Occupational Values: Occupation Groups

Female		Male	
Value	Standardized Discriminant Function Coefficients	Value	Standardized Discriminant Function Coefficients
Early Entry	3.17	Leadership	3.18
Leadership	2.92	Helping Others	3.16
High Income	2.90	Early Entry	3.15
Variety	2.84	Variety	2.95
Helping Others	2.80	High Income	2.92

Centroids of Groups in Reduced Space

	N			N	
Group 1	173	-.00146	Group 1	159	-.00013
Group 2	109	.00666	Group 2	125	.00397

Percent of grouped cases correctly classified:	61%	54.2%

Table 5-17

Weights and Group Means for the Discriminant Function for Marriage Values: Occupation Groups

Female		Male	
Value	Standardized Discriminant Function Coefficients	Value	Standardized Discriminant Function Coefficients
A Normal Life	3.09	Security	3.38
Security	2.85	A Normal Life	3.22
Children	2.77	A Feeling of Leadership	2.78
A Feeling of Leadership	2.66	Prestige	2.69
A Helpmate	2.64	A Helpmate	2.60

Centroids of Groups in Reduced Space

	N			N	
Group 1	173	.00058	Group 1	159	.00012
Group 2	109	.00350	Group 2	125	.00382
Percent of grouped cases correctly classified:		49.6%			53.5%

Table 5-18

Weights and Group Means for the Discriminant Function for Parenthood Values: Occupation Groups

Female		Male	
Value	Standardized Discriminant Function Coefficients	Value	Standardized Discriminant Function Coefficients
A Stable Marriage	2.74	Friendship	-.61
Confidence as a Man or Woman	2.46	A Tie to the Future	-.59
Respect of Others	2.37	Joy	-.35
A Sense of Importance	2.32	Respect of Others	.35

Centroids of Groups in Reduced Space

	N			N	
Group 1	173	.00010	Group 1	159	-.14782
Group 2	109	.00446	Group 2	125	.18790
Percent of grouped cases correctly classified:		54.3%			54.6%

JC scales by the 600 11th-grade students are described here by examining the differences among the main sample groups for each scale, the relationship between the two scales, and the relationship of each scale to other variables in the study. The results for two other variables are also reported in this section: the responses of students to a task in which they were asked to divide a circle into segments representing the relative importance to them of work, marriage, children and "other"; and the responses to the question of number of children desired, considered in relation to other study variables.

The IL and JC scales range from a preference for least to most involvement in the total job and child domain, and from greatest preference for a job to greatest preference for children in the job vs. child orientation domain. Both scales range from one to seven. The ANOVA for the IL scale showed significant main effects for sex and ethnic groups, and one interaction, sex by ethnic group:

Sex: $F_{1,587} = 29.1 \quad pr > F = .0001$

Ethnic: $F_{2,587} = 16.4 \quad pr > F = .0001$

Ethnic by Sex: $F_{2,587} = 2.93 \quad pr > F = .0543$

The means for the groups with significant F values are:

Group	Mean IL Scale Value*	SD
Sex		
Female	4.72	1.64
Male	4.01	1.69
Ethnic		
White	3.96	1.60
Black	4.87	1.72
Hispanic	4.27	1.66

*Range 1 - 7

Group	Mean IL Scale Value	SD
Sex x Ethnic		
Female		
White	4.09	1.54
Black	5.33	1.52
Hispanic	4.75	1.64
Male		
White	3.83	1.65
Black	4.41	1.79
Hispanic	3.79	1.55

Females were asked to respond to the IL and JC scales in terms of what they would prefer for themselves, if they could have just what they wanted, assuming the children were under 10 years of age and the job was for pay outside the home. Males were asked which combinations they would most like for their wives to have, if they (the males) could have just what they wanted. As shown by the means for the sex and ethnic groups, females preferred a greater degree of total involvement in the entire job and child domain than males stated they wanted for their wives. Among the ethnic groups, the black students preferred the greatest degree of involvement and the white students a lower degree. For the sex and ethnic groups, the interaction term appears due to the shift in order of the means between males and females: for females the order (from highest degree of IL preference) was black, Hispanic and white; for males the order was black, white, and Hispanic. SES group means on the IL scale were: middle, 4.35,SD = 1.67; low, 4.39, SD = 1.73.

Similar directions were given for the Job-Child Orientation Scale: females stated the preference for themselves and males the preference for their wives. The ANOVA shows significant main effects for sex and ethnic groups, and an ethnic by SES group interaction that just reached significance.

Sex: $F_{1,588} = 21.44$ pr > F = .0001

Ethnic: $F_{2,588} = 9.09$ pr > F = .0001

Ethnic x SES: $F_{2,588} = 2.90$ pr > F = .0559

The means for the groups with significant F values are:

Group	Mean JC Scale Value*	SD
Sex		
Female	4.12	1.92
Male	4.83	1.89
Ethnic		
White	4.86	1.95
Black	4.06	1.93
Hispanic	4.50	1.86

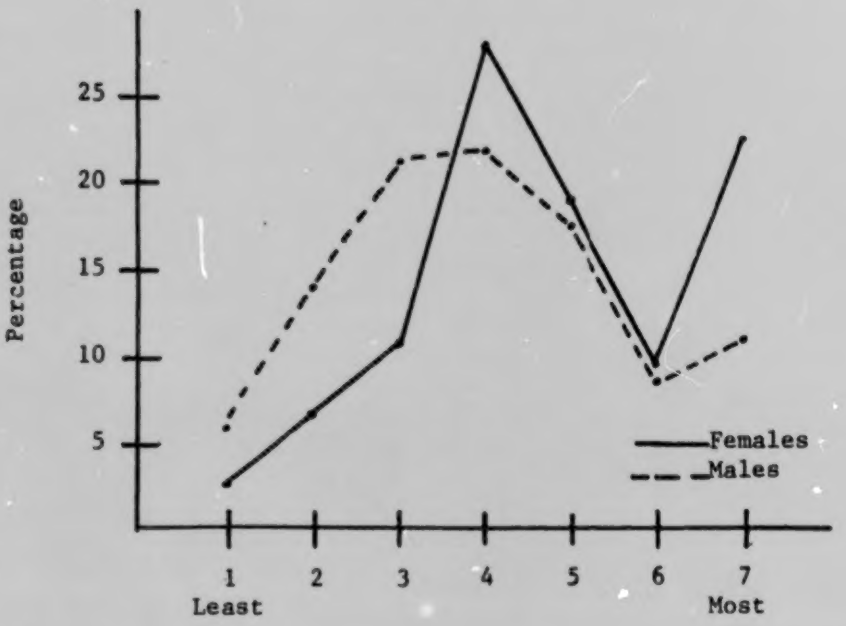
*Range 1 - 7

Group	Mean JC Scale Value	SD
Ethnic x SES		
Middle		
White	4.67	1.97
Black	4.24	1.85
Hispanic	4.71	1.81
Low		
White	5.06	1.91
Black	3.89	2.00
Hispanic	4.28	1.89

The means for the SES groups were: middle, 4.54, SD = 1.89; low, 4.41, SD = 1.99. As the data for the means show, the males preferred a higher degree of child orientation for their wives than females preferred for themselves. Within the ethnic groups, the white students preferred a higher level of child orientation than the black students. The interaction between the SES and ethnic groups is reflected in the different order of means within the middle and low SES groups. Middle SES Hispanic students had the highest degree of preference for children (compared to a job) and for low SES students the white students had the highest degree of preference for children.

Figure 5-1 depicts the frequency distributions for the IL and JC scales for females and males. In addition to the difference in the distributions identified by the means, the figure shows, for example, that the percents at the top of each scale differ considerably for females and males. On the IL scale about twice as many females state a preference for the highest degree of involvement with work and children (full-time job and 3 children) as males state they would prefer their wives to have. Similarly, the ratio of 2:1 occurs for the males' preference for their wives to have children as compared to females preference to have children vs. a job.

A. Involvement Level Scale



B. Job-Child Orientation Scale

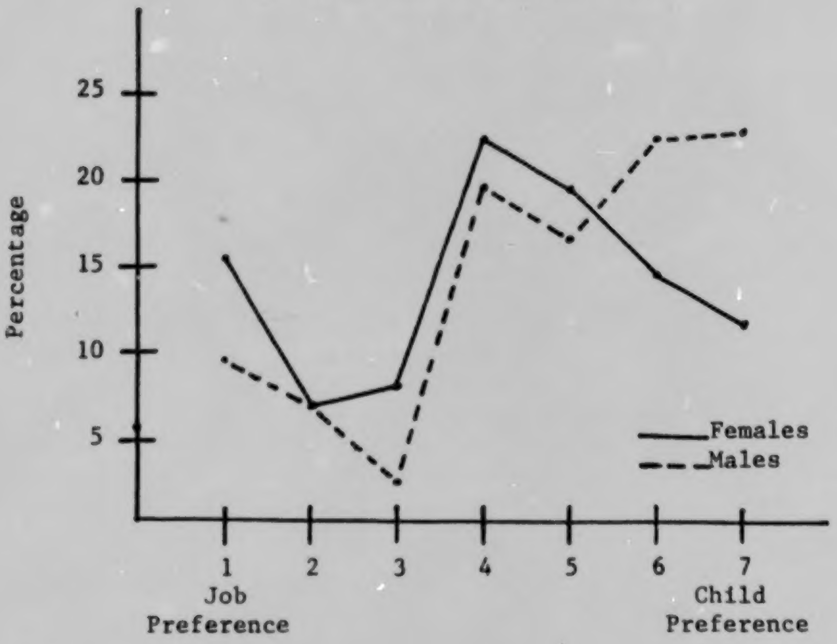


Figure 5-1. Distributions on Involvement Level Scale and Job-Child Orientation Scale: Females and Males

Of considerable interest is the independence of the scales. Coombs reported two scales for the sample of adults on which the scales were developed. The use of the scales with another sample and age group can provide further substantiation of the scaling process. In the present sample the independence is shown by the cross tabulation of the frequencies for the IL and JC scales. These frequencies are shown for the total sample, and females and males separately in Tables 5-19, 5-20, and 5-21. The data are represented also by the correlations between the two variables. The correlation between IL and JC for the total sample was -.123 ($p = .0025$, $N = 599$), a statistically significant but very low correlation. Neither of the correlations for the female and male samples was statistically significant (different from zero): for females $r = .080$, $p = .169$, $N = 300$; and for males $r = .097$, $p = .0928$, $N = 299$. The scales were essentially uncorrelated within the female and male samples, a very desirable characteristic.

The two Coombs' scales were examined in relation to other variables in the present study. Because the scales show sex differences, these analyses were conducted separately by sex. The analysis considered each scale as a dependent variable, and asked what other variables in the study contributed to the prediction of female or male scores on the IL or JC scale. The tables of intercorrelations for major variables in the study (demographic variables, the three value sets, family activities, the circle for work, marriage and children, and the time lines) were reviewed for identification of the variables with the highest correlations with the dependent variables. (And for the number of children desired, as will be described below.) The variables showing the highest correlations with each dependent variable were entered into a stepwise multiple regression analysis.

Table 5-22 presents a summary of the stepwise regression analysis for the IL scale. Data are presented separately for females and males. The data show that the variables that predict the IL scale differ for the sexes. For the women students, the variables that are related to a higher preference for involvement in the total domain of work and children are: higher ratings for a full-time career (as opposed to part-time work or a job or no work); the number of years they expect to work full time before age 41; a higher age for completion of education; an expectation for full-time work (this variable has 1 - full-time work, to 4 - sometimes full-time, sometimes part-time work); and a lower rating for the occupational value of High Income. The multiple correlation for all five variables with the IL scale is .447.

For males, prediction of the IL scale involves their preference for the involvement of their wives in the total domain defined by both work and children. The IL scale for males has a lower multiple correlation than for females, $R = .392$. Those males who tend to prefer a higher total involvement level for their wives give higher ratings to: expectations that their spouses will work

Table 5-19

Cross Tabulation of Involvement Level and Job-Child Orientation Scales: Total

Job-child Orientation Scale		Involvement Level Scale Least 1	2	3	4	5	6	Most 7	Total N	Total %
Job	1	8	6	9	15	10	8	23	79	13.2
	2	1	3	10	7	8	5	8	42	7.0
	3	1	6	4	5	5	3	7	31	5.2
	4	1	11	22	43	31	2	16	126	21.0
	5	3	7	10	25	24	20	20	109	18.2
	6	0	10	25	30	18	12	15	110	18.4
Child	7	12	19	18	23	14	5	11	102	17.0
Total	N	26	62	98	148	110	55	100	599	100%
	%	4.3	10.4	16.4	24.7	18.4	9.2	16.7		

Table 5-20

Cross Tabulation of Involvement Level and Job-Child Orientation Scales: Females

Job-child Orientation Scale		Involvement Level Scale Least 1	2	3	4	5	6	Most 7	Total N	Total %
Job	1	4	3	2	13	6	4	18	50	16.7
	2	0	2	5	4	4	3	3	21	7.0
	3	0	6	1	5	4	2	6	24	8.0
	4	0	1	9	26	16	1	14	67	22.3
	5	1	2	2	14	15	12	13	59	19.7
	6	0	3	9	12	8	4	8	44	14.7
Child	7	3	3	7	10	4	3	5	35	11.7
Total	N	8	20	35	84	57	29	67	300	100%
	%	2.7	6.7	11.7	28.0	19.0	9.7	22.3		

Table 5-21

Cross Tabulation of Involvement Level and Job-Child Orientation Scales: Males

Job-Child Orientation Scale		Involvement Level Scale								
		Least 1	2	3	4	5	6	Most 7	N	%
Job	1	4	3	7	2	4	4	5	29	9.7
	2	1	1	5	3	4	2	5	21	7.0
	3	1	0	3	0	1	1	1	7	2.3
	4	1	10	13	17	15	1	2	59	19.7
	5	2	5	8	11	9	8	7	50	16.7
	6	0	7	16	18	10	8	7	66	22.1
Child	7	9	16	11	13	10	2	6	67	22.4
Total	N	18	42	63	64	53	26	33	299	100%
	%	6.0	14.0	21.1	21.4	17.7	8.7	11.0		

Table 5-22

Summary of Stepwise Regression - Involvement Level Scale

Variable	B	Beta	Standard Error B	F	R Each Step
Females (N = 244)					
V554 Work Pattern Full-time Career	.03486	.1732	.0124	7.85	.292
V552 No. years full-time work before age 41	.06019	.2021	.0182	10.88	.361
V530 Age completing education	.10926	.1689	.0386	8.00	.404
V429 (Self) working hours	-.23912	-.1638	.0873	7.50	.430
V564 O - High Income	-.02054	-.1223	.0099	4.30	.447
(Constant) 1.19253					
Males (N = 265)					
V437 Spouse - Work pattern continuous	-.40753	-.1785	.1341	9.23	.226
V556 Work pattern: full-time job	.03095	.1643	.0108	8.19	.278
V356 Circle: No. segments for children	.16211	.1638	.0577	7.88	.319
V418 Family activities: earning salary that supports family	-.36887	-.1523	.1418	6.77	.348
V618 M - Security	.02025	.1494	.0078	6.46	.374
V639 P - A Sense of Pride	.02151	.1172	.0106	4.15	.392
(Constant) 1.98789					

continuously (this variable is coded 1 = work pattern of continuous work, 2 = mostly continuous, 3 = off and on, and 4 = briefly); Full-time Job; Circle: Number of children; Family activities: Earning salary that supports the family (higher rating to wife has responsibility); the marriage value of Security; and the parenthood value of A Sense of Pride.

The combination of variables that predict the high IL score for females centers on work and occupational variables. The combination of variables differs for males who are expressing a preference for wives with a high IL score. These variables involve both work patterns for their spouses and their own ratings for children. Also, they include both Financial Security (as a marriage value) and A Sense of Pride. It is also important to note that these males agreed that "Earning Salary that Supports the Family" is not mainly a man's responsibility to the same degree as it is for males with a lower IL preference score.

It is interesting to speculate on the difference in the combinations of variables predicting the IL scale. For males, the combinations make sense when examined at their face value. For females, the lack of any variables relating to children may seem unrealistic. However, these variables may not appear because all the women in this sample are more similar in their expectations or acceptance of the socially predominant expectation of marriage and parenthood.

The sharper contrast between job and child tradeoffs is provided by the JC scale. Table 5-23 summarizes the regressions for the Job-Child Orientation Scale. Again data are reported separately for females and males. The multiple correlation for females was noticeably higher than the R for males: R for females = .609; R for males = .388. The variables that predicted the JC scale differ for the women and men in this sample, as they did for the IL scale.

For females, the variables that predicted a child orientation (high end of the JC scale) as opposed to a job orientation were: Circle: a higher number of segments (weights) for Children; fewer number of years of full-time work by age 41; a lower percent of responsibility for the wife to earn money in a family with children; a higher rating to the marriage value of Children; a higher rating to the work pattern, "Not Working"; and a higher rating to the marriage value of A Permanent Companion.

For males, the variables that predicted a preference for their wives to have an orientation to children versus work were: a higher rating to the marriage values of Financial Security and Children, to the occupational value of Security, and to the parenthood value of Friendship; and a tendency to view the responsibility to earn a salary that supports a family as predominantly that of the man in the family.

Table 5-23

Summary of Stepwise Regression - Job-Child Orientation Scale

Variable	B	Beta	Standard Error B	F	R Each Step
Females (N = 299)					
V356 Circle: No. Segments for Children	.29440	.2570	.0589	24.94	.424
V552 Years Full Time Work by Age 41	-.05733	-.1635	.0175	10.74	.501
V508 Wife responsibility to earn money	-.02594	-.2034	.0063	17.16	.547
V625 M-Children	.03559	.1848	.0098	13.17	.571
V558 Work Pattern Not Working	.03474	.1646	.0104	11.26	.593
V624 M-Permanent Companion	.03193	.1389	.0108	8.83	.609
(Constant) -.77546					
Males (N = 297)					
V618 M-Security	-.03394	-.2213	.0086	15.54	.243
V625 M-Children	.04145	.1989	.0115	13.08	.304
V568 O-Security	.03236	.1611	.0111	8.51	.347
V418 Family Activities: Earning Salary that Supports Family	.33422	.1257	.1446	5.34	.368
V641 P-Friendship	.02501	.1233	.0111	5.10	.388
(Constant) -.33314					

The combination of predictor variables for females and males on the JC scale differs as it did for the IL scale. For females, this time there were variables related both to children and to work. Only one variable appeared as a predictor for both scales. For males, the variables that predicted the child orientation on the JC scale were, with one exception, from the three sets of values. And two of the variables, the marriage values of Financial Security and the "Earning Salary...," appeared in sets of predictors for both IL and JC.

Number of children desired. Using the variable Number of Children Desired, another set of regression analyses was carried out that is of interest in the context of the job-child tradeoff. These analyses used as the dependent variable the number of children 11th-grade students stated they desired. Again, the analyses were conducted separately by sex, since the three-way ANOVA for the sample groups showed the main effect of sex to be the only significant factor ($F_{1,549} = 9.77$, $pr > F = .0019$). The mean number of children desired by females was higher than that for males, 2.94 vs. 2.63.

Table 5-24 presents the summary of the step-wise regression analyses. The multiple R's were .339 for females and .390 for males. The variables that predicted the number of children desired by females were higher values for: Circle: Number of segments for Children; the IL scale; the marriage value of Children; and a lower school average. The JC scale was entered in the analysis, but was not among the variables significant in the step-wise prediction.

More variables entered the prediction equation for males. A greater number of children was predicted by the variables: Child orientation on the JC scale; a higher rating on the marriage value of Your Own Home and a lower rating on the marriage value of A Feeling of Leadership; and more traditional views of the family activities of Mowing the Lawn, Mending Clothes, and Reading to Children.

Of the three dependent variables examined in this section, the variable that was best predicted was that of the Job-Child Scale. This is perhaps understandable since many of the questions in the study were designed to examine attitudes and values in the area of work and family (marriage and children). The IL scale is independent of the JC scale and appears to be more concerned with a general personality style which was not a focus in the present study. The lower multiple R's for the Number of Children Desired may reflect several factors. For example, one factor may be that 11th-grade students have not considered the number of children they desire, as opposed to a general expectation of having children. Another factor may be that the relationships with number of children are non-linear and that prediction may vary for several subpopulations of women that have not been identified here. SES and ethnic groups are not the basis of these groups, at least for the students in this sample. Further analysis may find that level of educational aspiration or professional goals are important moderators of the number of children desired.

Table 5-24

Summary of Stepwise Regression - Number of Children

Variable	B	Beta	Standard Error B	F	R Each Step
	Females (N = 271)				
V356 Circle: Number of segments for children	.13991	.17211	.04871	8.25	.229
V216 Involvement Level Scale	.12875	.16503	.04538	8.05	.288
V625 M-Children	.01926	.14115	.00816	5.57	.318
V142 School Average (9 = High)	-.08049	-.11902	.03902	4.26	.339
(Constant) 1.01827					
	Males (N = 282)				
V353 Job-Child Scale	.13947	.23752	.03265	18.25	.263
V626 M-Your Own Home	.01393	.12301	.00639	4.76	.311
V628 M-A Feeling of Leadership	-.01860	-.17129	.00610	9.28	.341
V410 Family Activity: Mowing the Lawn	.16396	.11153	.08623	3.62	.371
V412 Family Activity: Reading to Children	-.41709	-.12400	.18869	4.89	.390
V407 Family Activity: Mending Clothes	-.18780	-.11513	.09417	3.98	.406
(Constant) 3.0114					

Relative importance of work and family. One other task in the interview examined the relative importance of work, marriage and children for students. Students were presented with a circle (see Question 49 in the interview schedule) and asked to give the importance of work, marriage, children and "other" to them by dividing the circle into four parts. The number of segments assigned to each of the four areas was counted to give a "score" for each.[1] Three-way ANOVAs were carried out using each of the four areas as dependent variables. For Marriage, only one main effect was significant and no interactions appeared. The weights for Marriage differed for ethnic groups ($F_{2,588} = 16.52$, pr > F = .000). The mean and SD for the ethnic groups were:

Group	Mean	SD
White	6.0	1.7
Black	5.1	1.9
Hispanic	6.0	1.7

The black students in this sample tended to assign a lower weight (number of circle segments) to the area of Marriage.

The ANOVA for Children showed one two-way interaction to be significant. The Sex by SES group interaction was significant: $F_{1,588} = 4.73$, pr > F = .030. The means and SD's for these groups were:

	Group	Mean	SD
Middle	Female	5.0	1.5
	Male	5.3	1.7
Low	Female	5.3	1.8
	Male	5.0	1.7

The means show that the pattern of weights or importance assigned to Children was the opposite within the SES groups. In the middle SES group females gave a lower weight than males to Children; in the low SES group females gave a higher weight than males to Children.

The ANOVA for Work weights showed a significant main effect, ethnic group, and a two-way interaction, sex and SES.

Ethnic: $F_{2,588} = 11.38$, pr > F = .000

Sex x SES: $F_{1,588} = 3.58$, pr > F = .059

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[1] Means and SDs for the total sample for the four parts of the circle were: Marriage, M=5.7, SD=1.8; Children, M=5.1, SD=1.7; Work, M=6.0, SD=2.2; Other, M=3.2, SD=1.7.

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The means for these groups were:

	Group	Mean	SD
Ethnic	White	5.6	2.1
	Black	6.5	2.4
	Hispanic	5.8	1.9
Middle	Female	6.1	2.2
	Male	5.8	2.0
Low	Female	5.8	2.2
	Male	6.1	2.4

These means show black students giving higher weight to the Work segment than white or Hispanic students. And, as with the Children segment, the order of importance for the Work segments changes for females and males within the SES groups.

The weights for the "other" segment did not vary significantly between groups. For the total sample, the range of weights varied from 0 - 11 for Marriage, 0 - 11 for Children, 1 - 15 for Work, and 0 - 12 for "other." The "scores" for the Circle weights are ipsative, but the inclusion of the "other" segment for rating may have partially compensated for this characteristic by allowing more independence in assigning weights to the other three areas.

G. Sex Roles, Family Activities and Responsibilities, and Timing of Family and Work

Career decisions made by women appear to take into account their expectations for marriage and children (Psathas, 1968). According to Bernard (1976) these expectations are influenced by social norms for the behaviors appropriate for females and males, that is, their sex roles. In the present study sex roles were examined in two series of questions during the interview. The first was a list of activities for families with children drawn from the work of Eagly and Anderson (1974) and modified slightly for the present study. Students were asked to rate each activity on a scale from 1 to 5, where 1 meant that the activity was Only a Woman's Responsibility, 2 - Mainly a Woman's Responsibility, 3 - the activity could be Either Person's Responsibility, 4 - Mainly the Man's Responsibility, and 5 - Only a Man's Responsibility. The activities included in the list are those traditionally assigned to either a man or woman by virtue of their sex.

The second set of questions related to sex roles asked students to assign the percent of responsibility the husband or wife should accept for three main responsibilities in a family: earning money, keeping house, and caring for children. Related questions asked about the circumstances under which a husband or wife should not work and how a husband or wife might feel if his/her spouse earned more money (than the husband or wife). The last questions described in this section asked students to indicate the age at which they expected to be in school, marry, have children, work full time, and work part time.

The questions on timing were placed at the end of the interview, since the time lines (see Question 55 in Appendix 2) often had the effect of illustrating unrealistic expectations or the problems that might arise in doing everything students stated they wanted to do.

Sex Roles and Family Activities

Students rated 22 activities for families with children on the 1 to 5 scale, from Only a Woman's Responsibility to Only a Man's Responsibility. Table 5-25 presents the frequencies given to each responsibility alternative by the total sample of 11th-grade students. Examples of items with traditional allocation of sex roles are the activities Mending Clothes and Repairing Household Appliances. Mending Clothes was assigned mainly to women (55.3%) or only to women (14%); Repairing Household Appliances was considered to be mainly a man's responsibility (55.8%) and only a man's responsibility (13.3%). Three activities were checked only as being either person's or the women's responsibility: Cleaning the House, Washing Clothes, and Caring for Baby.

Each of the 22 activities was analyzed using a three-way ANOVA to examine group differences, since the responses were distributed for the alternatives to each question. Only a few questions had very high percents for one alternative. For example, the activities Reading to Children, Taking Children to Doctor, Deciding to Move to Another City, Helping Children with Homework, and Deciding to Buy a Large Item: color TV, washing machine, were rated as either the man's or the woman's responsibility by 80% or more of the students.

The three-way ANOVA's for all the activity items are summarized in Table 5-26. For each activity the significant main effect or interaction is indicated. Although there are significant differences in the means for the groups, as shown in Table 5-26, the actual differences in mean ratings are not large. The direction and consistency of the differences are of interest, however, and are discussed here for the series of items significant for each main effect.

The means for items with group differences are reported in Table 5-27. Examining the direction of the differerences on the items with significant sex main effects shows that the ratings given by females tend to be less traditional, that is, less sex role stereotyped. For example, females had a higher mean (less strictly women's responsibility) for the activity of Cleaning the House, 2.67 vs. 2.54. And females had lower means (less strictly men's responsibility) for the remainder of the activity items that had sex differences. For example, the female and male means for Managing Family Money were 3.2 and 3.4, respectively; for Repairing Household Appliances the means were 3.7 and 3.9; for Mowing the Lawn the means were 3.7 and 4.1; and for Taking out Garbage the means were 3.4 and 3.6. There was only one item in which the sex differences appeared to be more stereotyped for females, Taking Children to Doctor. The mean for females was 2.8 and for males 2.9. The other items with sex differences also indicated a trend

Table 5-25

Frequency and Percent of Total Sample Responses to Activities For Families With Children[1]

	Only a Woman's respons-ibility 1		Mainly a Woman's respons-ibility 2		Could be either person's respons-ibility 3		Mainly a Man's respons-ibility 4		Only a Man's respons-ibility 5		Missing no response 0		Mean
	N	%	N	%	N	%	N	%	N	%	N	%	
Cleaning the house (dust,vacum)	27	4.5	179	29.8	393	65.5	-	-	-	-	1	.2	2.61
Mending clothes	84	14.0	332	55.3	182	30.3	1	.2	1	.2	-	-	2.17
Managing family money	2	.3	14	2.3	400	66.7	159	26.5	24	4.0	1	.2	3.32
Repairing household applicances	-	-	7	1.2	177	29.5	335	55.8	80	13.3	1	.2	3.81
Mowing the lawn	-	-	2	.3	185	30.8	267	44.5	144	24.0	2	.3	3.92
Planning color scheme for home	25	4.2	126	21.0	441	73.5	5	.8	2	.3	1	.2	2.72
Reading to children	4	.7	17	2.8	570	95.0	7	1.2	2	.3	-	-	2.98
Taking out garbage	-	-	2	.3	343	57.2	204	34.0	50	8.3	1	.2	3.50
Washing the family car	-	-	4	.7	337	56.2	184	30.7	72	12.0	3	.5	3.54
Washing clothes	72	12.0	305	50.8	222	37.0	-	-	-	-	1	.2	2.25
Caring for baby	39	6.5	185	30.8	376	62.7	-	-	-	-	-	-	2.56
Taking children to doctor	18	3.0	75	12.5	501	83.5	4	.7	2	.3	-	-	2.83
Earning salary that supports family	-	-	2	.3	288	48.0	241	40.2	69	11.5	-	-	3.63
Doing family's food shopping	33	5.5	200	33.3	353	58.8	10	1.7	2	.3	2	.3	2.58
Deciding when car needs tune-up	-	-	1	.2	194	32.3	280	46.7	125	20.8	-	-	3.88
Teaching children sports	-	-	1	.2	324	54.0	205	34.2	66	11.0	4	.7	3.56
Cooking meals	72	12.0	245	40.8	278	46.3	5	.8	-	-	-	-	2.36
Fixing a broken lamp	-	-	2	.3	207	34.5	311	51.8	78	13.0	2	.3	3.78
Deciding to move to another city	-	-	2	.3	526	87.7	58	9.7	14	2.3	-	-	3.14
Helping children with homework	2	.3	21	3.5	573	95.5	2	.3	1	.2	1	.2	2.96
Staying home from work if a child is sick	53	8.8	224	37.3	316	52.7	3	.5	3	.5	1	.2	2.46
Deciding to buy a large item: color TV, washing machine, etc.	4	.7	8	1.3	540	90.0	40	6.7	7	1.2	1	.2	3.06

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[1] Adopted from Eagly and Anderson (1974).

Table 5-26

Summary of ANOVAs of Activities for Families with Children

	Significant F's (pr> F = .05 or less)						
	Main Effect			Interaction			
	Sex	Ethnic	SES	Sex/ Ethnic	Sex/ SES	Ethnic/ SES	Three Way
Cleaning the house	X	X	X				
Mending clothes				X			
Managing family money	X	X					
Repairing household appliances	X	X	X				
Mowing the lawn	X	X					
Planning color scheme for home					X		
Reading to children						X	
Taking out garbage	X	X					
Washing the family car	X	X	X				
Washing clothes			X				
Caring for baby				X			
Taking children to doctor	X		X				
Earning salary that supports family	X	X	X				
Doing famililly food shopping							
Deciding when car needs tune up	X		X				
Teaching children sports	X						
Cooking meals			X				
Fixing a broken lamp	X	X	X				X
Deciding to move to another city	X						
Helping children with homework							X
Staying home from work if a child is sick				X			
Deciding to buy a large item: color TV, washing machine, etc.	X	X					X

Table 5-27

Means for Activities with Significant Sex, Ethnic or SES Group Differences

	Group means						
	Sex		Ethnic			SES	
Activity	F	M	W	B	H	M	L
Cleaning the house	2.7	2.5	2.6	2.7	2.6	2.7	2.6
Managing family money	3.2	3.4	3.3	3.3	3.4		
Reparing household appliances	3.7	3.9	3.7	3.8	3.9	3.7	3.9
Mowing the lawn	3.7	4.1	3.8	4.0	4.0		
Taking out garbage	3.4	3.6	3.4	3.6	3.5		
Washing the family car	3.4	3.7	3.5	3.7	3.5	3.5	3.6
Washing clothes						2.3	2.2
Taking children to doctor	2.8	2.9				2.9	2.8
Earning salary that supports family	3.4	3.8	3.8	3.5	3.6	3.6	3.7
Deciding when car needs tune up	3.8	4.0				3.8	4.0
Teaching children sports	3.3	3.8				3.5	3.6
Cooking meals						2.4	2.3
Fixing a broken lamp	3.7	3.9	3.7	3.9	3.8	3.7	3.9
Deciding to move to another city	3.1	3.2	3.0	3.1	3.1		
Deciding to buy large items	3.0	3.1					

toward less traditional sex-role stereotyped views of these activities by females when compared to males.

Nine of the 13 items with sex differences also had statistically significant differences in the mean responses of the ethnic groups. The items with ethnic differences and the group means are also shown in Table 5-27. Differences among the ethnic groups are not as consistent as the differences between the sexes. For the activity Cleaning the House, the Hispanic and white groups are more traditional (tended to rate the activity as more the responsibility of the woman) than the black group. However, on the next item, Managing Family Money, the Hispanic group is more traditional than the black and white groups. And for the item, Fixing a Broken Lamp, the black students tended to rate the activity in accord with traditional sex roles in the family. These group differences do not have the consistent pattern the sex differences did.

Ten of the activity items showed SES group differences. The SES group differences were very consistent. For each item the middle SES students gave ratings that were less traditionally sex stereotypical. That is, if the item were traditionally a woman's responsibility, middle SES students rated it more toward the middle of the scale, where it could be either person's responsibility. One example is the item Cleaning the House. Middle SES students had a mean rating of 2.7 and low SES students had a mean of 2.6, more toward the woman's responsibility end of the rating scale. Similarly, if the item was for an activity that has been traditionally the man's responsibility, middle SES students would give it a lower rating, moving toward the middle of the scale where the activity could be either person's responsibility. For example, Deciding when a Car Needs a Tune-up was given a mean rating of 3.8 by middle SES students and a mean of 4.0 by low SES students.

The sex by ethnic group interactions also had a consistent pattern. For three items with a significant sex x ethnic interaction, the disordinal differences between groups were that the female Hispanic students were the most traditional of the three female groups and the white male students were the most traditional of the three male groups. The means for these items were:

	Means					
	Females			Males		
Activity	W	B	H	W	B	H
Mending Clothes	2.3	2.3	2.0	2.1	2.2	2.2
Caring for Baby	2.6	2.7	2.5	2.4	2.5	2.6
Staying Home from Work if a Child is Sick	2.5	2.6	2.3	2.4	2.5	2.5

The Hispanic females had a mean rating of 2.0 for Mending Clothes, the lowest (most oriented toward a woman's traditional responsibility) of the groups of women, and the white males had a mean rating of 2.1, the lowest of the male ratings.

The one item with a sex x SES interaction, Planning Color Scheme for Home, had means indicating that middle SES females had more of a tendency to say this activity could be either person's responsibility than did the other groups. Means were:

	Female	Male
Middle	2.8	2.7
Low	2.7	2.7

The single item with an interaction between ethnic and SES groups was Reading to Children. The means were:

	W	B	H
Middle	3.0	3.0	3.0
Low	3.0	2.9	3.0

The means indicate that low SES black students gave somewhat more traditional (female responsibility) ratings to this activity.

Although several three-way interactions were reported, the smaller sizes of these groups (N = 50 per group) and the small differences over all the groups do not warrant further description here. Of more interest is the examination of the activities in terms of their independence and overlap. The analysis used for this purpose was a factor analysis of the twenty-two items. The factor analysis was carried out for the total sample, as well as for females only and males only due to the fact that over half of the items had sex differences in the mean ratings.

Summaries of the main factors are given in Tables 5-28, 5-29, and 5-30. Table 5-28 reports the six factors (using a criterion of eigen values of 1.00 or greater) and factor loadings for activities above .30 on each factor. The seven factors for the female sample are given in Table 5-29, and the six factors for the male sample in Table 5-30.

The main factors in each of the three analyses are similar, and appear to sample three general areas: homemaking, children, and family decision making or the marital relationship. Two separate factors appeared that reflect traditional sex role activities in homemaking for females and males, respectively. The traditionally female homemaking role activities are on Factor 2 for the total group, and Factor 1 for the other two samples. Items such as Cleaning the House, Mending Clothes, and Cooking Meals have high loadings on the factors. The traditional male homemaking activities are on Factor 1 for the total sample, Factor 3 for the female sample (four items identify this factor), and Factor 2 for the male group. The items which identify this factor are Repairing Household Appliances, Deciding when Car Needs Tune-up, Fixing a Broken Lamp, and Mowing the Lawn. One bipolar factor that is defined at one end by traditional male and at the other end by traditional female sex role activities appeared in the female sample (Factor 6).

Table 5-28
Factors and Activity Item Loading - Total Sample[1]

V	Activity	Loading
	Factor 1	
409	Repairing Household Appliances	.69
410	Mowing the lawn	.54
420	Deciding when the car needs tune up	.62
421	Teaching children sports	.44
423	Fixing a broken lamp	.74
408	Managing family money	.31
414	Washing the family car	.30
	Factor 2	
406	Cleaning the house	.65
407	Mending clothes	.69
415	Washing clothes	.72
419	Doing family food shopping	.44
422	Cooking meals	.67
426	Staying home from work if a child is sick	.42
	Factor 3	
408	Managing family money	.61
411	Planning color scheme for home	-.35
418	Earning salary that supports family	.59
421	Teaching children sports	.49
424	Deciding to move to another city	.65
	Factor 4	
416	Caring for baby	.62
425	Helping children with homework	.83
426	Staying home from work if a child is sick	.45
	Factor 5	
412	Reading to children	.62
417	Taking children to doctor	.73
419	Doing family food shopping	.48
	Factor 6	
410	Mowing the lawn	.43
413	Taking out garbage	.74
414	Washing the family car	.63

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[1] N = 579

Table 5-29

Factors and Activity Item Loading - Females

V	Activity	Loading
	Factor 1	
406	Cleaning the home	
407	Mending clothes	.61
415	Washing clothes	.66
419	Doing family food shopping	.41
422	Cooking meals	.69
426	Staying home from work if child is sick	.56
	Factor 2	
416	Caring for baby	.61
425	Helping children with homework	.80
420	Deciding when car needs tune-up	-.32
	Factor 3	
409	Repairing household appliances	.69
420	Deciding when car needs tune-up	.59
423	Fixing a broken lamp	.78
410	Mowing the lawn	.31
	Factor 4	
412	Reading to children	.80
417	Taking children to doctor	.48
419	Doing family food shopping	.39
	Factor 5	
408	Managing family money	.33
411	Planning color scheme for home	.81
421	Teaching children sports	-.35
	Factor 6	
413	Taking out garbage	.69
414	Washing family car	.69
417	Taking children to doctor	-.47
407	Mending clothes	-.32
410	Mowing the lawn	.49
419	Doing family food shopping	-.31
420	Deciding when car needs tune-up	.32
	Factor 7	
408	Managing family money	.59
418	Earning salary that supports family	.42
421	Teaching children sports	.63
424	Deciding to move to another city	.73

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[1] N = 291

Table 5-30

Factors and Activity Item Loading - Males[1]

V	Activity	Loading
	Factor 1	
406	Cleaning the house	.60
407	Mending clothes	.67
415	Washing clothes	.76
418	Earning salary that supports family	-.38
419	Doing family food shopping	.51
422	Cooking meals	.70
426	Staying home from work if a child is sick	.33
	Factor 2	
409	Repairing household appliances	.65
410	Mowing the lawn	.66
414	Washing the family car	.39
418	Earning salary that supports family	.31
420	Deciding when car needs tune-up	.61
421	Teaching children sports	.53
423	Fixing a broken lamp	.74
	Factor 3	
416	Caring for baby	.58
425	Helping children with homework	.81
426	Staying home from work if a child is sick	.56
	Factor 4	
412	Reading to children	.76
417	Taking children to doctor	.75
	Factor 5	
412	Reading to children	-.34
413	Taking out garbage	.72
414	Washing the family car	.45
	Factor 6	
408	Managing family money	.61
411	Planning color scheme for home	-.65
418	Earning salary that supports family	.40
424	Deciding to move to another city	.54

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[1] N = 288

Activities concerned with children were split between two factors in these groups. For example, in the female sample Factor 2 is a bipolar factor defined at one end by Caring for Baby and Helping Children with Homework and at the other end by Deciding when Car Needs Tune-up. Other items concerned with children appeared on Factor 4 for the female sample: Reading to Children; Taking Children to Doctor (and Doing Family's Food Shopping also has a moderate loading on this factor). For males the similar two factors are Factors 3 and 4. (In the total sample these items appear on Factors 4 and 5). One factor has a different type of activity. Factor 6 in the male sample, Factor 7 in the female sample, and Factor 3 in the total sample have items that are concerned with decision making or allocation of power in the family. These factors have the items: Managing Family Money, Earning Salary that Supports Family and Deciding to Move to Another City. (Teaching Children Sports appears on this factor in the female and total sample analysis.)

The clustering of the family activity items are fairly similar across the three samples. In terms of the factor analyses being limited by the items represented in the item pool, it can be noted that the traditionally sex-role stereotyped homemaking activities are well sampled, both for males and females, perhaps even oversampled. The items concerned with children appear to represent three areas, but with only one or two items in each: caring for very young children (one item), a caretaker function; reading to children or teaching children sports, a concern with their physical and mental development, perhaps more of a teaching role; and an item such as Taking Children to Doctor, which appears to represent the continuing caretaking responsibility, regardless of the age of the child. Future research could very well define these functions further, and add items to determine if in fact they are perceived as different types of family activities.

The third area is concerned with the marital relationship, the traditional husband-wife role in terms of economics and decision making. It was represented by three items, and could well be expanded to provide more definition of this area in future research. The three items were: Managing Family Money, Earning Salary that Supports Family, and Deciding to Move to Another City. Additional items could deal with other aspects of the trade-offs between the man's and the woman's occupational and family roles.

Division of Family Responsibilities

The other questions which examined attitudes toward sex roles were Question 56, What do you think is the best arrangement for dividing up these (Earning Money, Keeping House, Caring for Children) responsibilities? Students were asked, In terms of earning money, for example, what percent of the responsibility should the husband accept? and the wife? or someone else? For the total sample the mean and standard deviations are reported in Table 5-31.

Table 5-31

Means and Standard Deviations for Percent Responsibilities for Question 56

Area of Responsibility	Percent responsibility allocated to: Husband M	Husband SD	Wife M	Wife SD	Someone else M	Someone else SD
Earning Money	67.8	15.7	32.1	15.9	0	.6
Keeping House	34.8	16.5	63.6	17.5	1.9	10.5
Caring for Children	43.4	11.5	55.3	11.8	1.2	6.6

The means follow the traditional patterns for Earning Money and Keeping House. All of the wives' percents fell at 50% and below; none of the males were below 50%. An unexpected result was the nearly equal mean for Caring for Children. For the total sample, 379 (63.2%) stated 50% of the responsibility should be the husband's and 387 (64.5%) said 50% of the responsibility should be the wife's. (The percents did not always sum to 100% across persons, since the students could assign the percents independently to each person.) This 50-50 split was not found for the other two areas of responsibility. However, nearly a third allocated 50% of the responsibility for earning money to the husband and 50% to the wife. Similarly, slightly over one-third, 36%, allocated responsibility for keeping house equally to the husband and wife.

Responses to each of the three areas were examined by three-way ANOVA's. All three main effects were significant for the area of Earning Money. The F values for the main effects were, for husband's percent:

$$\text{Sex: } F_{1,588} = 54.46,\ \text{pr} > F = .0001$$

$$\text{Ethnic: } F_{2,588} = 9.89,\ \text{pr} > F = .0001$$

$$\text{SES: } F_{1,588} = 11.49,\ \text{pr} > F = .0007$$

The means for the groups were:

	Sex		Ethnic			SES	
	F	M	W	B	H	M	L
Mean	63.4	72.3	71.2	64.6	67.6	65.8	69.9

These differences indicate that females were giving a lower degree of responsibility to earning money for the family to the husband than the males were, again a less traditional view of the sex role. There was not, however, a fully equal allocation of responsibility for earning money.

The ethnic group differences indicated that the white students, as a group, allocated higher percents of responsibility to males than did black or Hispanic students, reflecting a traditional sex role view of this responsibility. Within the SES groups, the low SES group allocated the higher percent responsibility, the more traditional view.

The significant main effects for Keeping House were:

Husband's responsibility

Ethnic: $F_{2,588} = 4.15, \text{pr} > F = .0162$

SES: $F_{1,588} = 6.15, \text{pr} > F = .0134$

Wife's responsibility

SES: $F_{1,588} = 11.37, \text{pr} > F = .0008$

The means for the ethnic groups for husband's responsibility for Keeping House were: 32.0, white; 36.8, black; and 34.4, Hispanic. The black students assigned a slightly higher percent responsibility to the husband's role in housekeeping. The means for the SES groups were: 36.1, middle; and 32.7, low. The middle SES group also assigned a slightly higher percent responsibility to the husband. The means for the significant SES group difference for the wife's responsibility in keeping house were: 61.2, middle; and 66.0, low. The means are in the same direction as for the husband's responsibility, with the middle SES group assigning a lower percent responsibility to the wife.

The three-way ANOVA for Caring for Children showed no significant main effects or interactions among the sample groups. As noted above, nearly two-thirds of the students stated that husbands and wives should share equally in the responsibility of caring for children.

The last questions that examined traditional attitudes toward the family were concerned with the circumstances under which a husband or wife should not work and how a wife or husband felt if their spouse earned more money than they did. The responses to the question, Are there any circumstances under which a husband should not work? were coded for analysis. Almost two-thirds of the students gave the circumstance of ill health (62%). For the circumstances under which a wife should not work, the predominant response was, If she has small children (63%), followed by Ill health (16%) and If she doesn't want to (6%). Analyses of the main groups by chi squares showed no group differences for situations under which a husband should not work but significant differences between the sexes on the situations under which a wife should not work. More females than males cited Ill Health as a reason (20% vs. 11%).

The responses to the question, How do you think a wife (husband) feels if her husband (wife) earns more money than she (he) does? were coded Positive (responses typically said proud, feels good about it), Negative, or Doesn't matter. Table 5-32 presents the responses for these categories. The overall trend in these data was along the line of traditional sex roles. Eighty-two percent of the sample stated the wife would be positive or accepting if the husband earned more money. Only 21% of the students stated that the husband's feeling would be positive or accepting if the wife earned more money than he did. About three-fourths said his attitude would be negative, reflecting the traditional sex role expectations for the husband as major wage earner.

Table 5-32

Attitudes Toward One Spouse Earning
More Money Than the Other

Attitude	Wife's feeling if husband earns more N	%	Husband's feeling if wife earns more N	%
Positive	201	34	37	6
Negative	61	10	441	74
Doesn't matter	290	48	89	15
Other	46	8	33	5
Total	598	100%	600	100%

Chi square analyses showed that the females and males differed in their responses to how a wife and husband would feel ($X^2_3 = 28.83$, $p = .0000$ and $X^2_3 = 17.62$, $p = .0005$) but that the other main groups did not. More males than females stated a wife would feel negative (16% vs. 5%) and more females said it doesn't matter (56% vs. 41%). On the husband's feelings, more females than males said he would feel negative (54% vs. 46%).

Timing of Family and Work

Questions designed to elicit student plans for education, marriage, children, full-time work and part-time work between the ages of 16 and 41 were asked by means of time lines (see Appendix 2, Question 55 for the exact format). Students circled the age(s) at which they expected each event would occur. Table 5-33 presents the frequency distributions for each event.

The mean age at completion of high school was 17.5 and the age of completing education ranged from 17 to 34. The mean age for marriage was 25 years, with a range from 18 to 40. Student age at birth of first child ranged from 16 to 40, with a mean of 26.7 years.

Three-way ANOVA's were used to examine the data for group differences. Age at Finishing High School showed significant main effects for ethnic and SES groups.

Ethnic: $F_{2,588} = 3.1$, $pr > F = .0474$

SES: $F_{1,588} = 11.3$, $pr > F = .0008$

Means for the ethnic groups were: 17.43, white; 17.47, black; and 17.59, Hispanic. Means for the SES groups were: 17.4, middle; and 17.58, low. These mean ages reflect age differences in the sample that were noted earlier, with the Hispanic and low SES students slightly older than the other groups.

Age at Completing Education also showed significant ethnic ($F = 11.2$, $pr > F = .0001$) and SES ($F = 36.0$, $pr > F = .0001$) group differences. Means for the ethnic groups were: 21.52, white; 22.44, black; and 22.56, Hispanic. SES group means were: 22.76, middle; and 21.58, low. The SES group differences reflect the lower educational aspirations of the low SES group.

Age at Marriage showed all three main effects significant. The sex main effect was significant at the .0001 level ($F = 44.59$) and the mean age at which boys expected to marry was later than that for girls--25.81 vs. 24.17. The main effect for ethnic groups was significant at $pr > F = .041$ ($F = 3.22$), and the means for the groups were: 24.74, white; 25.46, black; and 24.82, Hispanic. The F for the SES groups was 8.71 ($pr > F = .0033$), and the means were: 25.36, middle; and 24.64, low. For these groups, males, black students, and middle SES students expected to marry at later ages. These patterns are similar to those for age at completion of education.

With regard to timing of children each student circled the ages at which he/she expected to have the first, second or third child. The three-way ANOVA's were calculated for all three, but the number of missing cases varied for each, as noted with the variable. The overall mean age for first child was 26.7 years. Twenty-six students (4.3%) did not plan to have a child or did not respond. The ANOVA

Table 5-33

Frequency Distributions for Ages at Which all Students
Expect Major Events to Occur

	Age Finishing H. S. V528		Age Completing Education V530		Age of Marriage V532		Age at 1st Child V534		Age at 2nd Child V536		Age at 3rd Child V538	
Code/Age	F	%	F	%	F	%	F	%	F	%	F	%
Missing/0	–	–	–	–	26	4.3	26	4.3	56	9.3	323	53.8
16	24	4.0	1	.2	–	–	1	.2	–	–	–	–
17	289	48.2	13	2.2	–	–	1	.2	–	–	–	–
18	254	42.3	32	5.3	5	.8	1	.2	–	–	–	–
19	33	5.5	32	5.3	6	1.0	4	.7	1	.2	–	–
20	–	–	40	6.7	14	2.3	8	1.3	–	–	–	–
21	–	–	125	20.8	32	5.3	10	1.7	4	.7	–	–
22	–	–	141	23.5	46	7.7	16	2.7	8	1.3	3	.5
23	–	–	48	8.0	70	11.7	33	5.5	12	2.0	4	.7
24	–	–	69	11.5	77	12.8	45	7.5	15	2.5	6	1.0
25	–	–	42	7.0	122	20.3	80	13.3	40	6.7	10	1.7
26	–	–	29	4.8	64	10.7	88	14.7	46	7.7	13	2.2
27	–	–	11	1.8	48	8.0	77	12.8	67	11.2	24	4.0
28	–	–	12	2.0	25	4.2	75	12.5	72	12.0	31	5.2
29	–	–	1	.2	23	3.8	36	6.0	75	12.5	29	4.8
30	–	–	–	–	23	3.8	41.	6.8	71	11.8	42	7.0
31	–	–	1	.2	2	.3	30	5.0	43	7.2	34	5.7
32	–	–	2	.3	5	.8	12	2.0	33	5.5	24	4.0
33	–	–	–	–	1	.2	5	.8	30	5.0	17	2.8
34	–	–	1	.2	1	.2	–	–	10	1.7	19	3.2
35	–	–	–	–	5	.8	7	1.2	7	1.2	11	1.8
36	–	–	–	–	1	.2	1	.2	3	.5	5	.8
37	–	–	–	–	1	.2	1	.2	5	.8	2	.3
38	–	–	–	–	–	–	–	–	–	–	1	.2
39	–	–	–	–	1	.2	–	–	2	.3	2	.3
40	–	–	–	–	2	.3	2	.3	–	–	–	–
Mean	17.5		22.2		25.0		26.7		28.6		29.9	
SD	.7		2.5		3.1		3.1		3.1		3.2	

Table 5-33 (Continued)

	Started Full Time work V540		Resumed Full Time Work V542		Started Part Time Work V544		Ended Part Time Work V546		Started Part Time Work V548		Ended Part Time Work V55	
Code/Age	F	%	F	%	F	%	F	%	F	%	F	%
Missing Cases	17	2.8	469	78.2	177	29.5	209	34.8	550	91.7	553	92.2
16	-	-	-	-	29	4.8	-	-	-	-	-	-
17	1	.2	-	-	34	5.7	4	.7	-	-	-	-
18	22	3.7	-	-	114	19.0	5	.8	-	-	-	-
19	25	4.2	-	-	93	15.5	16	2.7	-	-	-	-
20	36	6.0	-	-	15	2.5	22	3.7	-	-	-	-
21	49	8.2	2	.3	11	1.8	52	8.7	-	-	-	-
22	88	14.7	-	-	10	1.7	70	11.7	-	-	-	-
23	106	17.7	4	.7	13	2.2	36	6.0	2	.3	-	-
24	53	8.8	3	.5	7	1.2	40	6.7	-	-	1	.2
25	73	12.2	1	.2	11	1.8	25	4.2	-	-	1	.2
26	37	6.2	3	.5	6	1.0	28	4.7	4	.7	-	-
27	28	4.7	5	.8	11	1.8	9	1.5	4	.7	3	.5
28	17	2.8	3	.5	8	1.3	13	2.2	3	.5	2	.3
29	12	2.0	11	1.8	9	1.5	8	1.3	3	.5	1	.2
30	10	1.7	9	1.5	6	1.0	10	1.7	2	.3	3	.5
31	4	.7	9	1.5	6	1.0	2	.3	3	.5	4	.7
32	2	.3	6	1.0	5	.8	8	1.3	4	.7	3	.5
33	5	.8	8	1.3	4	.7	5	.8	7	1.2	2	.3
34	2	.3	10	1.7	6	1.0	6	1.0	3	.5	3	.5
35	6	1.0	20	3.3	9	1.5	2	.3	3	.5	2	.3
36	-	-	9	1.5	2	.3	2	.3	1	.2	2	.3
37	2	.3	8	1.3	2	.3	4	.7	5	.8	-	-
38	2	.3	6	1.0	4	.7	-	-	1	.2	1	.2
39	-	-	1	.2	4	.7	4	.7	2	.3	3	.5
40	3	.5	13	2.2	4	.7	20	3.3	3	.5	16	2.7
Mean	23.8		32.8		21.5		24.9		32.1		34.7	
SD	3.6		4.7		5.8		5.4		4.5		5.0	

had significant sex (F = 20.9, pr > F = .0001) differences, with again the males showing a later mean age than females (27.2 vs. 26.1). The SES main effect was also significant (F = 13.38, pr > F = .0003) and the mean age for middle SES students was later than for low SES students (27.13 vs. 26.21).

For age at second child data were missing for 56 (9.3%) of the students (i.e., either they had no plans for a second child or did not respond). The sex main effect was significant (F = 12.33, pr > F = .0005) and the mean age for males was again higher than for females, 29.1 vs. 28.2. The SES main effect was significant (F = 15.16, pr > F = .0001) and the mean for middle SES students was higher than for low SES students, 29.14 vs. 28.14. Responses for age of third child were given by less than half of the students, 277 or 46.4%. The ANOVA for these students showed significant ethnic and SES effects. The F for the ethnic main effect was 4.27 (pr > F = .0149), and the means were: 30.26, white; 30.36, black; and 29.11, Hispanic. The F for the SES main effect was 6.42 (pr > F = .0119) and the means were 30.46 for middle SES students and 29.40 for low SES students. The SES trend is consistent with the differences in ages at completion of education, marriage, and first child, since middle SES students tended to expect to complete education and marry at later ages. The expected ages for full-time and part-time work are of interest, since they indicated a pattern whereby some students recognized they would be in the work force full time, and then would stop full-time work and would later resume it. Similarly, the distributions for part-time work indicated entry and exit from the work force for a small percentage of students.

As shown in Table 5-33, the mean age at which all students expected to begin full-time work was 23.8, with a range from 17 to 40 years. Table 5-34 presents the frequency distributions of ages for work plans for females and males separately.

For timing of work plans, age was circled according to when and what type of work pattern students expected. This pattern could include entry, exit and re-entry for both full-time and part-time work between the ages of 16 and 41. The distributions for the sexes show that more males expect to start full-time work at earlier ages, and it is primarily women who forecast a re-entry to (or resuming of) full-time work at some age. And, as might be expected, the age distribution of females doing part-time work is more scattered than that for males, with only a small percentage of males expecting to have part-time work after age 25. Of those anticipating starting part-time work a second time, 45 were female and 5 were male. And similarly for ending part-time work a second time, 44 were female and 3 male. The part-time work for males is predominantly during their education years, and for females part-time work continues on through the child rearing or family cycle.

Table 5-34

Frequency Distributions for Work Expectations for Females and Males

	Started full-time work				Resumed full-time work			
	Female		Male		Female		Male	
Age	F	%	F	%	F	%	F	%
Missing/ 0	16	5.3	1	.3	80	60.0	289	96.3
16								
17	1	.3						
18	11	3.7	11	3.7				
19	14	4.7	11	3.7				
20	16	5.3	20	6.7				
21	27	9.0	22	7.3	2	.7		
22	41	13.7	47	15.7				
23	49	16.3	57	19.0	2	.7	2	.7
24	26	8.7	27	9.0	2	.7	1	.3
25	30	10.0	43	14.3	1	.3		
26	12	4.0	25	8.3	3	1.0		
27	11	3.7	17	5.7	4	1.3	1	.3
28	9	3.0	8	2.7	3	1.0		
29	5	1.7	7	2.3	9	3.0	2	.7
30	8	2.7	2	.7	8	2.7	1	.3
31	4	1.3			9	3.0		
32	2	.7			6	2.0		
33	4	1.3	1	.3	8	2.7		
34	2	.7			10	3.3		
35	5	1.7	1	.3	20	6.7		
36					8	2.7	1	.3
37	2	.7			7	2.3	1	.3
38	2	.7			6	2.0		
39					1	.3		
40	3	1.0			10	3.3	2	.7
41					1	.3		
Mean	24.1		23.4		33		30.7	
SD	4.3		2.7		4.4		6.5	

Table 5-34 (cont'd.)

	Age started part-time work				Age ended part-time work			
	Female		Male		Female		Male	
	F	%	F	%	F	%	F	%
Missing/ 0	77	25.6	101	33.7	95	31.7	114	38.0
16	8	2.7	21	7.0				
17	13	4.3	21	7.0	2	.7	2	.7
18	46	15.3	67	22.3			5	1.7
19	44	14.7	49	16.3	8	2.7	8	2.7
20	8	2.7	7	2.3	10	3.3	12	4.0
21	7	2.3	4	1.3	24	8.0	28	9.3
22	6	2.0	4	1.3	27	9.0	43	14.3
23	7	2.3	6	2.0	21	7.0	15	5.0
24	5	1.7	2	.7	13	4.3	27	9.0
25	5	1.7	6	2.0	10	3.3	15	5.0
26	5	1.7	1	.3	13	4.3	15	5.0
27	11	3.7			5	1.7	4	1.3
28	6	2.0	2	.7	6	2.0	7	2.3
29	8	2.7	1	.3	6	2.0	2	.7
30	4	1.3	2	.7	9	3.0	1	.3
31	5	1.7	1	.3	2	.7		
32	5	1.7			7	2.3	1	.3
33	3	1.0	1	.3	5	1.7		
34	4	1.3	2	.7	6	2.0		
35	9	3.0			1	.3	1	.3
36	2	.7			2	.7		
37	2	.7			4	1.3		
38	4	1.3						
39	4	1.3			4	1.3		
40	2	.7	2	.7	20	6.7		
41								
Mean	23.3		19.4		26.7		22.9	
SD	6.6		3.9		6.5		2.8	

ANOVA's for the work age variables were also calculated. Age at starting full-time work showed all main effects and one interaction were significant:

Sex: $F_{1,571} = 5.89$, $pr > F = .0156$

Ethnic: $F_{2,571} = 3.59$, $pr > F = .0283$

SES: $F_{1,571} = 9.43$, $pr > F = .0022$

Sex x Ethnic: $F_{2,571} = 3.69$, $pr > F = .0257$

The mean ages for the main groups were:

	F	M	W	B	H	M	L
Mean	24.12	23.41	23.20	23.99	24.07	24.21	23.31

The mean ages for the interaction were:

	W	B	H
Female	23.52	24.86	23.95
Male	22.90	23.16	24.18

The highest mean age for starting full-time work was for black females and Hispanic males. The age resuming full-time work had responses from less than 25% of the sample (N = 131 students). Of this group, 120, or almost all, were females. There were no significant differences for ethnic groups but there were for SES groups ($F_{1,120} = 9.67$, $pr > F = .0355$). The mean age expected for resuming full-time work was 33.90 for middle SES students and 31.61 for low SES students. However, when the means for females only were examined, the middle SES group had a mean of 33.86 (N = 63) and the low SES group had a mean age of 32.07 (N = 57).

Age at starting part-time work also differed by sex ($F_{1,411} = 55.40$, $pr > F = .0001$). The Sex x Ethnic groups interaction was also significant ($F_{2,411} = 4.59$, $pr > F = .0107$). Females expected to start part-time work at later ages than males (means of 23.31 and 19.40, respectively, $N_F = 224$, $N_M = 199$). The means for the subgroups were:

	W	B	H
Female	24.83	22.06	23.01
Male	18.87	19.76	19.71

Black females expected to start part-time work at an earlier age and white males expected to start somewhat earlier. Again, the sex differences in ages reflect different work patterns. Typically, the males expected to work while attending college, and the higher mean age for females reflects less expectation of working during college (perhaps less realistic expectations).

The pattern for ending part-time work also reflects a different pattern for the sexes and their different reasons for entering and leaving full-time and part-time work status. Only the sex main effect was significant ($F_{1,379} = 54.27$, pr > F = .0001). The mean age for females was 26.73 (SD = 6.50) and that for males was 22.94 (SD = 2.75).

The data for the students who expected to start and end part-time work a second time were also analyzed. The data were examined for females only (typically, a pattern around the timing of children). Only the SES group differences were significant:

		Means	
		M	L
Age at re-entry part-time work:	$F_{1,39} = 4.22$, pr > F = .0467	33.62	30.67
Age at end of part-time work:	$F_{1,36} = 6.79$, pr > F = .0132	36.75	32.50

On the average, middle SES females expected to re-enter and leave part-time work at later ages than did low SES females.

These data on work patterns are summarized in one variable, number of years of full-time work before age 41. Each student's time line for full-time work was used to count the circled number of years. The range of this variable for the total sample was 23 years. The mean was 16.3 (SD = 5.8).

The three-way ANOVA showed significant main effects for sex and ethnic groups, and interaction effects for sex x ethnic groups and sex x SES groups:

Sex: $F_{1,585} = 357.96$ pr > F = .0001

Ethnic: $F_{2,585} = 6.90$ pr > F = .0011

Sex x Ethnic: $F_{2,585} = 12.64$ pr > F = .0001

Sex x SES: $F_{1,585} = 9.18$ pr > F = .0026

The means for the sex groups were 10.21 for females and 17.02 for males. Other means were:

	Ethnic			SES	
	W	B	H	M	L
Females	8.15	11.87	10.63	10.57	9.84
Males	17.47	17.03	16.56	16.29	17.75
Total	12.81	14.46	13.63	13.44(N.S.)	13.83(N.S.)

The interaction of sex x ethnic groups reflects the fact that black females expected to have the largest number of years of part-time work by age 41 and white males differed slightly from the other two groups, expecting to have the greatest number of years of full-time work by age 41. For the small difference in means for SES groups, middle SES females expected to have more years of work before age 41, as did the low SES males.

H. Sex-Typical and Sex-Atypical Groups

Earlier analyses found sex differences on the values within each of the three sets of values--occupational, marriage, and parenthood. Sex differences were also found on a number of variables other than the values, e.g., number of children desired and Coombs' Job-Child Orientation Scale. To examine the extent to which differences in the non-value variables might be accounted for by different values, sex-typical and sex-atypical groups were formed on the basis of the values. The newly formed groups were then used to examine the extent to which differences on the other variables might be due to sex-typical or sex-atypical values.

The method of forming the sex-typical and sex-atypical groups followed that described by Norris, Katz, and Chapman (1978). The general approach was to run a regression analysis in which sex, scored dichotomously, was the dependent variable. Predictor variables were the values. For the present study, the regression analyses were done for each of the three value sets separately, so there were three prediction equations.

From the regression analysis predicted sex "scores" were computed. The distribution of predicted sex scores was split to match the actual sex distribution in the sample (50-50). Scores above the cutoff score were designated "predicted male" and those scores below the cutoff score were designated "predicted female." The classification of students into four groups was based on the match or mis-match of the actual sex and predicted sex. The four groups were:

		Actual Sex	
		Male	Female
Predicted Sex	Male	Male Sex-typical (MT)	Female Sex-atypical (FA)
	Female	Male Sex-atypical (MA)	Female Sex-typical (FT)

A stepwise regression procedure was carried out using the standardized ratings for the 10 occupational values. The same procedure was followed for the 11 marriage values and the 12 parenthood values. The regression equations for each value set are given below. Each equation consists of three variables. The equations were the highest order solutions for which all beta weights were significant. Sex was the dependent variable in each case.

Occupational Values Equation:
Sex = 2.0610 - .0107 (Helping Others) - .0066 (Variety) + .00748 (Leadership)
R = .31

Marriage Values Equation:
Sex = 2.57594 - .00556 (Financial Security) - .006508 (Emotional Support) - .009365 (Prestige)
R = .24

Parenthood Values Equation:
Sex = 2.13855 - .00829 (Variety) + .008477 (A Stable Marriage) -.010404 (A Chance to Express Love)
R = .31

The predictors in each equation are values for which there were high F values when sex differences between groups were analyzed. The number of students classified into each of the sex-typical and sex-atypical groups is given below for each value set.

Occupational Values

	Atypical	Typical	
Female	(FA) 106	(FT) 194	300
Male	(MA) 107	(MT) 193	300
	213	387	

Marriage Values

	Atypical	Typical	
Female	(FA) 125	(FT) 175	300
Male	(MA) 123	(MT) 177	300
	248	352	

Parenthood Values	Atypical	Typical	
Female	(FA) 111	(FT) 189	300
Male	(MA) 111	(MT) 189	300
	222	378	

As can be seen from the distribution of frequencies within each set of values, the proportions of females and males classified as typical and atypical are almost the same in each instance. Since the three value sets are relatively independent, it was expected that the individuals classified as sex-typical and sex-atypical on the basis of each value set would differ. This expectation occurred to a considerable degree. For example, of 194 females classified as typical using the occupational values, 82 (42.3%) were classified as female atypical on the marriage values. Similarly, of 193 males classified as male typical on the occupational values, 84 (43.5%) were male atypical on the marriage values. Similar percentages occurred comparing the groups formed using occupational and parenthood values and when comparing groups formed using the marriage and parenthood values.

The groups formed by each value set were also compared for SES and ethnic group differences. Only the sex-typical/atypical groups formed using the occupational values had a significant chi square for SES ($X^2_3 = 7.59$, $p = .0552$). None of the comparisons were significant for the ethnic groups.

The analyses for the non-value variables were 2 x 2 ANOVA's, using actual sex by predicted sex as factors (as shown with the group counts above). The analyses were intended to determine whether there was any understanding of the sex differences to be gained by using classifications that differentiate female and male students on the basis of either the occupational, marriage or parenthood values. The analyses which follow discuss the findings on the basis of the value set used to form the groups.

Occupational Values

The variables for which the sex-typical/atypical analyses showed a significant interaction are: number of children desired;

the Job-Child Orientation Scale of Coombs; the estimate, How good a student are you?; number of children in family; the marriage values--A Helpmate, A Permanent Companion and A Feeling of Leadership, and the parenthood value, Variety. The F values for these variables are given in Table 5-35.

Table 5-35

F-Values for Variables with Sex x A/T
Interactions: Occupational Values

Variable	F	df	pr > F
Number of children desired	4.74	1,557	.0294
Job-Child Orientation Scale	4.09	1,596	.0436
Number of children in family	10.55	1,592	.0012
How good a student are you?	4.71	1,594	.0305
MV - A Helpmate	7.24	1,596	.0073
MV - Permanent Companion	5.33	1,596	.0213
MV - Feeling of Leadership	17.61	1,595	.0001
PV - Variety	7.99	1,596	.0049

The means for the groups for number of children desired were:

	A	T
F	2.67	3.09
M	2.65	2.62

The mean number of children desired by sex-atypical females (FA) was close to the mean number of children desired by both groups of males, and less than the number of children desired by the group of sex-typical females (FT). Since the occupational values on which the groups were differentiated were negatively weighted for Helping Others and Variety, and positively weighted for Leadership, the sex-atypical females who tended to desire fewer children were more likely to give a higher weight to Leadership and lower ratings to the other two values (i.e., be more like the male typical group).

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The means for the groups on the Job-Child Orientation Scale (JC) were:

	A	T
F	3.75	4.32
M	4.88	4.80

On the JC scale a higher score means the person is more child oriented than job oriented; a lower score means more oriented toward a job than children. (For this question, males were to answer in terms of what they would like for their wives to have; females were to respond in terms of what they would like for themselves.) Here the atypical females, as differentiated by the occupational values, tend to have lower scores on the scale, indicating somewhat more of an orientation toward job than children. (The scale range is 1 - 7, and the mean for the atypical females is about at the middle of the score scale.) The sex-atypical males (MA) have the highest mean overall, indicating a higher preference for their wives to be more oriented toward children than toward a job.

The means for the groups on the variable, number of children in (own) family were:

	A	T
F	3.03	3.46
M	3.55	3.05

Here the FA mean of 3.03 is very close to the mean of the MT group, 3.05. The means for the FT and MA groups are closer, and higher, indicating that on the average these groups came from larger families, and are more likely to desire more children and to be more child oriented on the JC scale of Coombs.

Group differences were also noted on the question, How good a student are you? Responses to this question fell into four categories: 1 = One of the best students in my class; 2 = Above middle of the class; 3 = In the middle of my class; 4 = Just good enough to get by. The means were:

	A	T
F	2.39	2.61
M	2.58	2.52

The FA group reported the lowest responses (2.39),[1] although the averages for all the groups fell between the categories of 2 and 3. The FT had the highest of the means (2.61, the lowest rank).

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[1] That is, the higher rank in class.

For the marriage and parenthood values with group differences, the means were:

A Helpmate (MV)

	A	T
F	46.56	48.85
M	48.93	46.81

A Permanent Companion (MV)

	A	T
F	54.62	54.64
M	57.11	55.74

Feeling of Leadership (MV)

	A	T
F	42.56	39.50
M	39.82	43.72

Variety (PV)

	A	T
F	51.05	52.06
M	50.10	46.75

Examining the three marriage values, the means for the FA group are closer to the MT group means than to the other two groups. For example, the FA and MT groups have the lowest means for the values A Helpmate and A Permanent Companion, and the highest means for the value, A Feeling of Leadership. The means for the parenthood value of Variety do not follow the same pattern. The mean for the FA group is between the FT and MA groups, and closer to the FT group than to the MT group. Since the variable sex (F = 1, M = 2) is being predicted, the females who are more like the males (as classified by these occupational values) would be expected to have means in these analyses closer to the typical (predicted) males. The same principle would hold for the males who are not well predicted by these values. These atypical males (MA) should be more like the typical females in their responses.

Marriage Values

There were several variables for which the sex-typical/sex-atypical groups formed on the basis of sex differences in the marriage values differentiated: number of children; the Job-Child Orientation Scale of Coombs; part-time job as a work pattern; the occupational values of Prestige and Variety; and the parenthood values of A Sense of Pride and A Stable Marriage. Table 5-36 presents the F values for those variables with significant sex x A/T group interactions. The marriage values that were used to predict sex, with F = 1 and M = 2, were (-) Financial Security, (-) Emotional Support, and (-) Prestige. The means for the four groups on number of children desired were:

	A	T
F	3.14	2.79
M	2.46	2.74

The means for the FT and MT groups were almost identical; the FA group desired a larger number of children than did the FT group. The mean of the FA group here is not closer to the mean of the MT group (than is the mean of the FT group) and as might be expected there was a sex main effect significant at pr > F = .0017 ($F_{1,577} = 9.90$).

Table 5-36

F-Values for Variables with Sex x A/T Interactions: Marriage Values

Variable	F	df	pr > F
Number of children desired	10.24	1,557	.0015
Job-Child Orientation Scale	10.01	1,596	.0016
Part-time job-work pattern	5.28	1,596	.0219
OV - Prestige	19.01	1,596	.0001
OV - Variety	5.21	1,596	.0228
PV - A Sense of Pride	6.04	1,596	.0143
PV - A Stable Marriage	7.28	1,596	.0024

The means for the groups on the Job-Child Orientation Scale were:

	A	T
F	4.32	3.98
M	4.45	5.10

The FT group had the lowest mean on the JC scale, which can have values from 1 through 7, indicating somewhat less of an orientation to children than the other groups had. The FT mean was about midpoint of the scale between an orientation to children vs. preference for a job. The FA group was above the midpoint of the scale, moving more towards the preference for children that both groups of males stated was what they would like for their wives to have.

The work pattern Part-Time Job was one of a group of five descriptions to be ranked/rated by students, where the descriptions distinguished between a career and a job, full-time and part-time work, and a no work description (see Question 40a in the interview schedule, Appendix 2). Ratings could range from 0 to 8. Students were asked how much each situation appealed to them, from 0, I would dislike this very much, to 8, I would like this very much. The means for the groups on this variable were:

	A	T
F	4.53	3.96
M	3.83	3.93

The FA group gave the highest ratings to this work pattern. In the interview, students did distinguish between the definitions of a career and a job, in terms of a career as work you do because you really like to do it and a job as something you do mostly for money. Thus the FA students are rating their preference of a part-time job higher than other students, and again are close to the FT group. When compared with the FT students, the students in the FA group here have expressed a preference for a greater number of children, a greater orientation toward children as opposed to a job, and for a part-time job.

The means for the two occupational values that had significant interactions were:

Prestige	A	T
F	48.74	50.74
M	52.44	47.76

Variety	A	T
F	52.36	50.68
M	47.36	49.31

The FA students expressed a lower rating for Prestige of an occupation, as a characteristic important in selecting an occupation, and a higher rating for Variety in an occupation. The mean for the FA is close to the MT group, and lower than the FT rating for Prestige. On the Variety value, the FA group is the highest, the FT and MT are next in order of means, and the MA gave this value the lowest rating of the four groups. It is possible to speculate that the FA group, with their higher ratings for number of children and orientation to children, do not place a high value on a particular occupation, but, as with the ratings for part-time job and Variety, seek an occupation that allows them to focus on children.

The parenthood values with significant interactions were A Sense of Pride and A Stable Marriage. The means for these values were:

A Sense of Pride	A	T
F	50.96	52.86
M	53.00	51.49

A Stable Marriage	A	T
F	45.89	43.57
M	47.94	51.01

The MT and FT means for A Sense of Pride fall between the two means for the atypical groups, with the FA group being closer to the MT group in giving this value a rating at the mean of the scale. The FT and MA groups gave A Sense of Pride a higher rating as a value important in deciding to become a parent. Although A Stable Marriage was given ratings at or below the mean by all four groups, the FT group gave it the lowest rating as a reason or need anticipated in deciding to have children. The MT group rated this slightly below A Sense of Pride.

Reviewing the relationship between the prediction of the sex-typical/atypical groups and reducing the differences between the sexes by means of these groups, it appears the marriage values do not function in the same manner that the occupational values do. For one thing, the use of the marriage values to separate the sexes by a regression equation resulted in all negative weights, implying "something is not" rather than a combination of positive and negative weights as occurred for the occupational values. The FA and MT groups are also not as consistently ordered (closely related) in the same way they were for the occupational values. These results may occur for a number of reasons, and the present data can only hint at the appropriate interpretation.

One reason the results may differ is that stereotypes or views of appropriate behaviors or satisfactions in marriage for males and females or their values are highly consistent within each sex. That is, although the rankings and ratings of the marriage values have variability, it was noted earlier that these distributions are not as rectangular as are those for the occupational values. Alternatively, the marriage values developed here require revisions, using either a better conceptual view, or statistical procedures, or both. Another interpretation is that these concepts related to marriage are not well-differentiated _in general_; individuals thinking about marriage may have only a vague or general perspective on the values or needs to be met by marriage which are not well articulated beyond a general emotional component. Thus, the results may reflect both a "state of thinking about marriage" as well as a "state of assessing values about marriage." Sawhill (1977) offers a clue when she makes some predictions, first for the present and then for the future,

> For the nearer term, the likely prospect is an increase in the labor-market participation of women as the higher value of their time makes home-based activities, including the rearing of children, more expensive. There will not only be fewer children but also fewer marriages as the wage differential between the sexes narrows. Does that mean that the nuclear family will wither away? I suspect that the quality of life for children and the relationships between husbands and wives can only improve. In the past, marriage was too often an economic necessity for women, and childbearing either the unintended outcome of sex or an insurance policy against the insecurities of old age. In the future, economics and technology are likely to ensure that the act of having a child and the decision to share life with another adult are freely and consciously chosen for the personal satisfactions they entail rather than as a means to some other end. Personal values and psychological needs met by marriage, children and family life will be the final arbiters of choice. (p. 124)

Although these personal values and psychological needs will function in choice in the future, the present data may indicate that the future is not yet here, and these values may not be articulated by high school students, at least in this sample.

Parenthood Values

There were a large number of variables differentiated by the sex-typical/sex-atypical groups formed on the basis of sex differences in parenthood values. These variables are listed in Table 5-37, along with their accompanying F-values and levels of significance for the sex x A/T interactions. The parenthood values that predicted sex were: (-) Variety, (-) A Chance to Express Love, and (+) A Stable Marriage.

Two variables were concerned with the level of student achievement: How good a student are you? and the high school grade average. The first used a scale with 1 = One of the best students in the class, 2 = Above the middle of the class, 3 = In the middle of the class, and 4 = Just good enough to get by. The HS average was on a scale of from 1 = D (69 or below) to 9 = A (93 - 100). Both variables were self-reported by students.

The means for the four groups were:

How good a student?

	A	T
F	2.75	2.40
M	2.35	2.65

HS average

	A	T
F	5.21	5.88
M	5.46	4.78

For both variables the trends are the same. The FA and MT groups have lower estimates of school achievement when compared to the other two groups. These data are reflected in the Planned Level of Education, Occupational Level (Roe) and the Occupational Score (Census). The means are given below:

Planned Level of Education

	A	T
F	5.40	5.78
M	6.13	5.40

Occupational Level (Roe)

	A	T
F	2.65	2.32
M	2.33	2.56

Occupation Score (Census)

	A	T
F	81.56	85.36
M	87.90	83.96

The planned level of education is highest for the FT and MA groups (5 = some college but less than 4 years; 6 = graduate from a 4-year college; and 7 = graduate or professional school). Similarly, the means for these groups show a higher level of occupation most likely to do (Roe categories) and of the Census occupational scores. For the Work pattern ratings the FT and FA groups are most oriented toward a part-time career or part-time job (as defined by the A/T groups formed by the three parenthood values). The means for the work pattern variables were (the higher the mean, the greater the liking for the particular work pattern):

Part-time Career

	A	T
F	5.61	5.98
M	5.47	5.22

Full-time Job

	A	T
F	4.48	4.17
M	4.05	4.92

Part-time Job

	A	T
F	4.40	4.08
M	3.63	4.04

Table 5-37

F-Values for Variables with Sex x A/T Interactions: Parenthood Values

Variable	F	df	pr > F
How good a student are you?	24.48	1,594	.0001
High school grade average	18.14	1,584	.0001
Planned level of education	21.29	1,585	.0001
Occupational Level (Roe)	9.90	1,564	.0017
Occupational Score (Census)	10.48	1,563	.0013
Work pattern:			
Parttime career	5.05	1,596	.0250
Full time job	11.76	1,596	.0006
Part time job	5.98	1.596	.0148
Age at completing education	11.46	1,596	.0008
Age at marriage	12.55	1,570	.0004
Age at second child	5.31	1,540	.0216
OV - Helping Others	5.39	1,596	.0206
OV - Variety	4.72	1,596	.0302
OV - Leisure	5.46	1,596	.0198
OV - Early Entry	13.38	1,596	.0003
MV - Emotional Support	30.89	1,596	.0001
MV - A Close Physical Relationship	4.32	1,596	.0381
MV - A Normal Life	19.53	1,596	.0001

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The part-time career pattern is given the highest rating by the FT and FA groups, followed by the MA and MT groups. Full-time job received the highest mean rating from the MT group, then the FA, FT and MA groups. The part-time job pattern was given its highest rating by the FA group, and lowest by the MA group.

Three of the variables on the time line also had significant interactions: age at completing education, age at marriage, and age at time of second child. The means for these variables for the four groups were:

Completing Education			Marriage			Time of Second Child		
	A	T		A	T		A	T
F	21.87	22.32	F	23.54	24.55	F	27.72	28.46
M	22.80	21.83	M	26.30	25.52	M	29.39	28.90

The mean ages given for completing education are somewhat higher for the FT and MA groups. For age at marriage and age at second child, there were sex main effects but the general trend is for the FA group to have the lowest mean age for the four groups. The MA group plans to be oldest at marriage and time of second child, in line with plans for completing education at an older (mean) age. The FA group is closest to the MT group for age at completing education, but then becomes closer to the FT group for the marriage and second child ages.

Four occupational values showed significant interaction effects for the four groups: Helping Others, Variety, Leisure, and Early Entry. The means for the groups on these values were:

Helping Others			Variety			Leisure			Early Entry		
	A	T		A	T		A	T		A	T
F	55.32	56.05	F	50.80	51.72	F	45.59	47.05	F	39.02	36.18
M	53.08	49.44	M	50.15	47.55	M	49.28	47.50	M	34.15	37.70

There is a general tendency in the means for the FA mean to be closer to the MT mean than is the FT mean to the MT mean. For two of the values, Helping Others and Variety, the means for the two female groups are closer than either is to the typical male group, with both female groups rating Helping Others and Variety higher than did either of the male groups. The FA group gave the lowest rating (of a set of ratings below the mean) to Leisure, and the highest of a set of generally low ratings to Early Entry.

Three marriage values had significant sex x A/T interactions: Emotional Support, A Close Physical Relationship, and A Normal Life. The means were:

Emotional Support			A Close Physical Relationship			A Normal Life		
	A	T		A	T		A	T
F	57.25	61.25	F	54.73	56.69	F	42.21	37.66
M	60.37	57.26	M	56.29	55.49	M	39.58	43.53

The means for these marriage values follow the pattern of FA and MT group means being most similar in magnitude. The typical females tended to give higher ratings to Emotional Support and A Close Physical Relationship, and a lower rating to A Normal Life as a value to consider in deciding to become married. As with the other values, the ratings among all four groups tended to be in the same general range, but to differ within these ranges.

Over the set of variables which were examined for changes in sex differences that might be accounted for by a set of parenthood values used as predictors of sex (1 = female, 2 = male), the FA and MT groups tended to be closer in numerical value than did the FA and FT groups. The FT and MA groups tended to be better students, to plan for higher levels of education and occupations, to desire a career rather than a job, and to plan to marry and have children at later ages than the FA group. The FT group tended to rate slightly higher traditional female occupational values, Helping Others and Variety, but to give a lower rating to Early Entry, in agreement with their educational and occupational aspirations. They also tended to place a higher value on the marriage values Emotional Support and A Close Physical Relationship and a lower value on A Normal Life (see Appendix 2 or Chapter 3 for the value definitions.)

The parenthood values, in terms of selecting predictors and defining sex-typical and sex-atypical groups, also functioned in the same general manner that the occupational values did. That is, the patterns of interactions were more consistent in the relationships among the four groups than they were for the marriage values.

CHAPTER V

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CHAPTER VI

SUMMARY OF FINDINGS

The purpose of the study was to determine how one aspect of the career decision making process differed for female and male high school students in several sociocultural (ethnic) and economic groups. The aspect selected for study was the relative importance of sex and occupational role-related values to educational and occupational decisions. Initial questions for the study centered around identifying the values for the sex-role related areas of marriage and parenthood, since the values for the occupational area had been developed by Katz (1973). After identifying the values in a pilot phase of the study, the three sets of values--occupational, marriage, and parenthood---were used in the main study. Also included were sex-role related variables and demographic variables thought to be important to characterize the group of students who comprised the sample.

A summary of the major findings based upon the sample of 600 11th-grade students follows the order of presentation of the findings in Chapters IV and V of the report. The format will enable the reader to refer back to these chapters where more detail on a particular set of findings is desired. Where appropriate, question numbers are given with the findings to facilitate reference within the chapters and with the interview schedule (Appendix 2).

The first section of the findings describes the characteristics of the students which are important for placing all of the study results in perspective. Variables such as age, religion, and place of birth are included here. The second section highlights the educational and occupational background of the parents of students in the study. With these sections as background, the educational, occupational, and family plans and expectations of the 600 11th-grade students are summarized. Findings about the persons to whom students talk about their plans in the areas of education, occupations, and marriage and parenthood are also included. These three sections comprise the summary of the main findings in Chapter IV.

Chapter V presented the findings on the values and related the values to educational and occupational decisions. The sections here follow the main analyses presented in Chapter V, and include separate sections on the occupational, marriage, and parenthood values. They concentrate on the similarities and differences in responses to the values among the sex, SES, and ethnic groups. Also mentioned are the factor analyses of the three sets of values, which provided an initial answer to questions of overlap and uniqueness among the three sets of values for this sample of adolescents.

The extent to which the values are related to educational, occupational, and fertility (number of children desired) plans and preferences for a job versus child orientation are summarized in a separate section. These summaries include the results of discriminant function analyses for groups formed on the basis of educational and occupational aspirations, and regression analyses using number of children and the job-child orientation scale as dependent variables. Two other sections focus on the time line showing ages at which students expected to marry, have children, and be working full time and part time, and on the attitudes toward responsibilities of men and women for activities in families with children. The remaining section of findings follows an analysis of Norris, Katz, and Chapman (1978) by forming sex-typical and sex-atypical groups using the best predictors of sex within each value set. Following the major data summaries are sections suggesting directions for future research and implications for practice.

IV-A. Demographic Variables

There were 600 11th-grade students in the sample, representing equally females and males, white, black and Hispanic ethnic groups, and low and middle SES groups (i.e., 50 students in each of 12 sample cells). A majority of students were 16 years old, and the Hispanic students were slightly older than the white students in this sample. Eighty percent of the students were born in New York state, with 32% of the Hispanic students born in Puerto Rico or a Spanish-speaking country and 12% of the black students born in southern states. Higher percentages of mothers of these students were born in Puerto Rico/Spanish country (90%) and southern states (44%). Of the 200 Hispanic students, 195 (97%) speak Spanish at home. Overall, 59% of the students reported their family religion as Catholic (92% of the Hispanic students, 59% of the white students and 32% of the black students). Seventy percent of the students had worked for pay outside the home. A larger number of Hispanic students, middle SES students and female students had never worked, when compared with the other subgroups. Of those students with work experience, the majority (68% full time and 51% part time) had jobs in the Service category (Roe, 1956), and more boys than girls had work experience classified as Technology (although the N's were small, 4 girls and 16 boys for full-time work; 3 and 15 for part-time work).

IV-B. Education and Occupation of Parents

Comparison of the frequency distributions for level of father's and mother's education shows that more mothers than fathers had graduated from high school/high school equivalency (34% vs. 27%) and the percentages attending technical or business school after high school, less than 4 years of college, graduate from a 4-year college, and attended graduate or professional school are about the same. (Percent of "Don't know" responses was higher for fathers--11.6% vs. 4.7% for mothers.) ANOVA's showed significant SES, ethnic, and SES x ethnic group interactions for father's level of education.

Similar main effects were found for mother's level of education, but no interaction. The SES main effects are expected; the ethnic group comparisons for mothers showed that mothers of black students had higher levels of education. The fathers of black students in the low SES group had a higher level of education, in contrast to the group order for middle SES students.

Both father's and mother's occupations were coded using Hamburger (1958) and the Bureau of the Census (1963) categories for type and level of occupation. Eighty percent of the students had fathers who were currently employed full time. (Six percent of the fathers were deceased, and smaller percents were retired or disabled or living apart from the family and work status was unknown.) Of the mothers, 51% were working full time and 10% were working part time. Another 27% of the mothers had worked in the past, so in this sample 88% of the mothers had worked or presently were working.

The mean level of occupation was compared for father's occupation for the sample groups. Using the Bureau of the Census type of occupation, the distribution of occupational categories differs by SES, as expected, and also by ethnic group (but not by sex of student). There are fewer fathers of white students in the Service worker category and fewer fathers of black students in the Business category. Level of father's occupation differed for SES and ethnic groups; fathers of white students were in occupations with higher Census scores, on the average, than the fathers of black and Hispanic students.

The analysis of mother's occupation shows that the largest percentage of mothers had occupations in the Clerical and Sales category (29.1%). Again SES differences are observed for both type and level of occupation (and no sex differences). Ethnic group differences showed that more mothers of black students were in the Professional category, and more mothers of Hispanic students were in the Operatives category. The analysis of level of occupation showed that the mean scores for mothers of black students were the highest of the three groups in the middle SES category. However, the pattern for low Census scores was different, and mothers of Hispanic students had the lower mean.

A comparison between the types of work categories most frequently found for fathers and mothers in this sample showed distributions reflecting traditional findings for occupations of females and males in the labor force. Fewer mothers are in the Business categories and more mothers are in the Clerical and Sales categories. More mothers than expected are in the Professional category, reflecting the data on main income earner in the family, where 63% are fathers, 24% mothers, and 13% other (welfare or social security, typically).

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IV-C. Educational, Occupational and Family Plans and Expectations of Students

Student educational aspirations did not differ by sex of student but did by SES and ethnic groups. On a scale from 2--finish high school only, to 7--professional or graduate school, the mean for the white students was 5.40, and for black and Hispanic students 5.78. Overall, half of the sample thought they would graduate from a four-year college and another 26% stated they would have professional or graduate education. The sample has, generally speaking, a high level of educational aspirations.

The occupational aspirations of students were considered in terms of the number of occupations they had considered, the job or occupation they would be most interested in doing and the one they thought they would actually do. The average number of jobs considered was 3.1 (standard deviation of 1.2). Eleventh-grade students have not considered many jobs, and this finding does not differ for either sex, the three ethnic groups, or the two SES categories.

Student occupations were coded on the Roe (1956) and the Bureau of the Census (1963) categories. A comparison of the occupations students stated they were most interested in doing and those they were most likely to do showed an increase in the Organization category and a decrease in the Arts and Entertainment category, as well as a slight decrease in the level of responsibility (Roe categories). For the job most likely to do, the occupational categories with the highest percentage for this sample were: Organization (24%), Service (13%), Technology (13%), Science (15%, the Science category includes nurses, pharmacists, veterinarians), General Culture (15%) and Arts and Entertainment(13%). Census categories most frequently used were: Professional (68%), Business (8%), Clerical and Sales (8%) and Service workers (4%).

The main sex differences for the Roe categories were that females were more likely to identify jobs they would do in the Service (16% vs. 10% for males) and Science categories (22% vs. 16%, but this category includes nurses), and less likely to identify jobs in the Technology category (2% vs. 23%).

Level of occupation did not show a sex difference on either category system. SES and ethnic group main effects were significant for Roe and SES and sex x ethnic group effects for the Census scores. Using the Roe levels, somewhat higher levels of aspiration were shown by the black and Hispanic groups than by the white group. Comparison of the Census score means showed that for females the highest means were for the white and black groups; for males the highest Census score means were for the Hispanic and black groups.

In connection with the occupations students were most likely to do, they were asked whether they knew someone in the occupation. About 55% knew someone in the occupation, either a parent (6%), a close friend or relative (31%) or someone else (17%). The remaining students did not know anyone in the occupation.

Student marriage plans were highly similar: almost all students said they would like to be married (only 5% said they would not). However, family plans differed by sex, with girls desiring a larger number of children than boys. The mean number of children desired by girls was 2.94 and for boys 2.63. (The number of children desired was uncorrelated with the number of children in the students' own families.) And, more females than males thought that having a family would make a difference in their plans for work.

Students were asked about the general work pattern they preferred. Choices were Full-time career, Part-time career, Full-time job, Part-time job, and Not working. Career and job were distinguished by the first being work you might do because you like to do it, the second as work you might do because you need the money. Ratings (on a standard scale with mean of 50 and SD of 10) were significantly different for female and male students for all choices except Part-time job. For example, male students rated Full-time career higher than female students (means of 61.7 and 60.0, respectively with standard deviations of 7.9 and 8.9). Part-time career had a higher mean rating from female students (56.7, SD = 6.9) than from male students (54.7, SD = 7.6). Overall, the mean ratings show that the fairly consistent sex differences occur because the female students are likely to rate part-time careers or not working higher than male students. Both the black and Hispanic students rated Full-time work higher and Not working lower than white students. Few SES differences were observed.

Another series of questions were related to work expectations. Students were asked if they expected to work full time, mostly full time, sometimes full time and sometimes part time, or mostly part time (less than 20 hours per week). Significant differences were found for the sex groups, but not for ethnic or SES groups. Female students gave consistently fewer expectations for full-time working hours, regardless of ethnic group or SES status. A work pattern question examined the continuity expected in working: continuously; mostly continuously; off and on, stopping for periods of one year or more; and briefly, less than four years altogether. Significant sex and ethnic group main effects were found. More males than females expected to work continuously, and black students expected to work somewhat more continuously than white students. Expectations for changing their type of work did not vary by group: over half the students (58%) expected to start in one field and remain in this field through their working life; almost a third (29%) expected to start in one field, change to a new field at some time; and 10% expected to try a variety of different jobs, not all in one field.

A question about how to combine work and family indicated that 57% (343) of the students expected to work continuously regardless of marriage/children (63 of the 343 were females). A second part of the question examined when students would work in relation to the ages of their children. These data were analyzed for females only.

Only 6.5% (15 girls) expected to work when their children were 1-3 years old; 37% when their children were 3-5 years old; 42% when children were 5-12 years old; and the remaining 14% when children were 12 years or older. Thus, 79% of these female students expected to work when the children were between 3 and 12 years old.

After students answered the set of work decision questions for themselves, they were asked to answer the same set for their spouses--to say what decisions their spouses would make for work and school. Overall, 73% thought their spouse would have a college education, 6.5% non-college further education, and 19% a high school education. More females than males thought their spouse would have a college education (78% vs. 70%); more blacks expected their spouses to have a college education; and more middle SES students had that expectation. A majority (94%) stated their spouses would work and of the males 24 or 9% predicted that their wives would work full time. This last percent stands in contrast to the earlier self-response to the same question, where 117 (39%) of the female students expected to work full time. However, another 20% of the male students expected that their wives would work mostly full time.

The responses to the work pattern of continuous, mostly continuous, off and on (stopping work for periods of one year or more) and briefly, less than four years altogether, again reflect differences in expectations by sex of the respondent. Six percent of the males expected their spouses to work continuously, 42% mostly continuously, 43% off and on, and 9% briefly. The mean (treating the categories as a 1-4 point scale with 1 = continuous) work pattern males expected for their wives was 1.55; female students had earlier given their expectation with a mean of 1.46, indicating more females planned a continuous work pattern.

Changing type of job more frequently may be taken as an indicator of occupational instability (in a traditional sense). Fewer female students than males thought their spouses would try a variety of jobs, not all in one field. Males predicted less job stability for their spouses than they did for themselves, whereas female students predicted about the same amounts. Responses did not differ by ethnic groups, but did by SES groups, with fewer low SES students predicting highly stable work patterns for their spouses than did middle SES students (44% vs. 57%). On the question of combining work and family, fewer males expected their wives to work continuously than did the female students. On the question of working while children are different ages, the general trend was for the male students to predict a more delayed return to work for their spouses, than the females in this sample predicted for themselves (on an earlier question).

Given the data on number of jobs students have considered, and in anticipation that these data would reflect few occupations considered, questions were included on persons students talk to about their educational, occupational, and family plans, and whether or not counselors or teachers talk to them about specific work or occupations. Students talked about their educational and occupational plans with their parents, relatives, friends, and a wide variety of persons. Only a small number of students stated they did not talk to anybody about these plans. However, for the marriage and family plans, a third of the students said they did not talk to anyone. Although there were some other group differences, the most important one was that more low SES students reported that they did not talk to anybody about their occupational plans. A majority of students reported that no teachers or counselors had talked to them about work possibilities (65% for teachers and 73% for counselors).

The last findings in this section were given in response to the question, What adult do you know personally who is living a life you would like to have? Almost a third of the sample (32%) did not identify an adult they would like to be like in some aspect. Of 396 students who clearly identified an adult, 84% liked or admired an adult of the same sex. There were slightly more female students who identified adult models of the opposite sex (22% of female models were adult males and 11% of male models were adult females). Aspects of the adult life students wanted to emulate were coded for work, family, personality or combinations thereof. Taking into account the combinations, 49% of the students mentioned the adult's work pattern, 24% the family pattern, and 54% the adult's personality. The main aspects of adult life cited alone or in combination were the adult's personality and work pattern. Aspects of family life were not cited as often by these 11th-grade students. The adults were typically a relative in the immediate or close family.

V-A. Occupational Values

Ten occupational values were rank ordered and rated by students: High Income, Prestige, Independence, Helping Others, Security, Variety, Leadership, Field of Interest, Leisure, and Early Entry (Katz, 1973). Major criteria for the values were that high school students would discriminate among the value terms and would vary in the relative weights assigned to them. These characteristics of the occupational values have been demonstrated in other settings and were found again in the present study. The frequency distributions for the ranks for each value are fairly rectangular in form. The most important value for the 11th-grade students in thinking about choosing an occupation was major Field of Interest. The least important was Early Entry, defined as starting work right away, rather than spending time, effort and money for more education. A multivariate analysis of variance using the main factors of sex, ethnic group and SES and the ten occupational values as dependent variables was run on the unstandardized ratings. Significant main effects were found for each factor, with no interactions. Univariate ANOVA's on the standardized ratings were then computed. Sex main effects were significant for six values: High Income, Helping Others, Variety, Leadership, Field of Interest, and Leisure.

Female students gave higher ratings to Helping Others, Variety, and Field of Interest. Males gave higher ratings to the remaining three values. Similar findings for some of the values were reported by Norris, Katz, and Chapman, with sex differences on High Income, Leadership, and Helping Others. Differences in the findings are probably due to the age differences as well as the location of their sample (at five two-year community colleges and at one four-year college in various parts of the country) compared to the sample of urban 11th-grade students described here.

In the present study SES group differences were found for three values: High Income (M > L); Helping Others (L > M) and Early Entry (L > M). Only one ethnic group main effect was significant for the ten values--Leisure, and black students gave this value a lower rating than white and Hispanic students.

Group differences were most pronounced for females and males, and less pronounced for SES groups and least of all for ethnic groups.

V-B. Marriage Values

The marriage values were developed for the present study. The 11 values that students ranked and rated were: Financial Security; Emotional Support; A Helpmate; A Close Physical Relationship; Prestige; A Normal Life; A Permanent Companion; Children; Your Own Home; Someone to Rely on; and A Feeling of Leadership. These were values that students were asked to consider for their relative importance in deciding to get married (or have a permanent companion). Each marriage value received all of the possible ranks and ratings, but the distributions were not as rectangular as they were for the occupational values. For example, Emotional Support was given the highest rank by 45% of the sample, resulting in a highly skewed distribution of ranks.

The most important values in deciding to get married, as given in this set of values, were: Emotional Support, A Permanent Companion, and a Close Physical Relationship. The least important values were: A Normal Life and A Feeling of Leadership. Group differences were examined by a MANOVA initially, and all three main effects were significant. Univariate ANOVA's showed significant sex differences for six of the marriage values. Female students gave higher ratings to Financial Security, Emotional Support and Prestige. Male students gave higher ratings to A Normal Life, Your Own Home, and A Feeling of Leadership. SES main effects were significant for four marriage values: Emotional Support (M > L); A Close Physical Relationship (M > L); A Normal Life (L > M); and Your Own Home (L > M). Only two values showed significant ethnic group differences: Financial Security and Children. Students in the black ethnic group gave higher ratings to Financial Security than did the other two groups, and Hispanic students gave higher ratings to the marriage value of Children than did the other two groups.

The marriage values met the criteria described for values, but not as satisfactorily as did the occupational values. While the rankings and ratings covered the entire range of all possible numbers for each marriage value, the distributions were not as rectangular as they were generally for the occupational values. Nevertheless, students did rank and rate the values and some systematic (but typically small) group differences were found.

V-C. Parenthood Values

Twelve parenthood values were defined for this study and rank ordered and rated by students. The values were: A Sense of Accomplishment; A Sense of Pride; Variety; Friendship; The Respect of Others; A Stable Marriage; A Chance to Express Love; Confidence as a Man or Woman; Joy; Future Security; A Tie to the Future; and A Sense of Importance. Each parenthood value, with one exception, received a complete set of possible ranks (A Chance to Express Love did not receive any ranks of 12, although it did receive all possible ratings). Several of the parenthood values had very skewed distributions (Friendship, A Chance to Express Love, and Joy). The values rated highest as important in deciding to have children were A Chance to Express Love, Joy, and Friendship. Least important were the values of The Respect of Others, Confidence as a Man or Woman, and A Tie to the Future.

A MANOVA showed significant sex, ethnic and SES group main effects. Univariate ANOVA's showed sex differences for these values: Variety (F > M); Friendship (F > M); Respect of Others (M > F); A Stable Marriage (M > F); A Chance to Express Love (F > M); and A Tie to the Future (M > F). SES main effects were significant for five values: Variety (M > L); Friendship (M > L); Confidence as a Man or Woman (L > M); Joy (M > L); and A Sense of Importance (L > M). Significant ethnic group effects were found for two values: A Sense of Pride (B > W > H); and A Chance to Express Love (W,H > B).

For the parenthood values, the majority of differences were found for females and males, with the number of SES group differences also high. Only two of the twelve values had different mean ratings for the three ethnic groups.

An overall characterization of the distribution and group differences data for the three sets of values is that many of the original objectives and hypotheses of the study were supported (Chapter 3, Section B). The three sets of occupational and sex role-related terms (values) met two criteria: high school students varied in the relative weights (importance ratings) assigned to the values; and high school students discriminated among the terms. This latter criterion was initially demonstrated by the rank orderings and ratings, and again in the next section by the factor analysis of the 33 values. Also, subgroups of the sample did differ in the importance assigned to the values, with sex differences the most frequently found group difference for this sample. One of the original hypotheses suggested that there would be interactions between sex and SES groups for the values. There were no interactions among the sex, SES, or ethnic groups; and the smallest number of differences in ratings of the values was found for ethnic groups.

V-D. Factor Analyses of the Values

The number of values which had significant sex differences in the mean ratings suggested that further analyses of the data should be carried out separately by sex. The smaller number of SES and ethnic group differences indicated that these distinctions did not need to be maintained in most analyses, although SES should be considered in some cases. Thus the factor analyses which examined the underlying structure for the total set of 33 values were carried out on the female students, the male students, and the combined sample. At this stage the factor analyses are important primarily to indicate that there are a number of dimensions that underlie the occupational, marriage, and parenthood values, and that there is independence as well as some overlap among the values in the three areas.

There were fourteen separate factors for each of the three factor analyses (using a criterion of an eigen value of 1.00 or higher to retain a factor). The factor analyses demonstrated that there are both common and unique meanings between the value sets, e.g., when a factor may consist of values from only one of the three sets. One particularly interesting finding is that several of the occupational values formed bipolar factors for males, but did not cluster as uniquely for females. For females, the occupational values were always combined with marriage or parenthood values. One interpretation of this finding is that it reflects the traditional separation of sex roles in our culture: males are identified with occupational roles and females with homemaking and motherhood. The traditional separation of roles for adults by sex may mean that males more readily separate the values satisfied by occupations from those satisfied in marriage and parenthood. Females apparently have more difficulty in this separation, as illustrated in the loading of the occupational value, Helping Others, on several factors.

V-E. The Relation of Values to Educational and Occupational Decisions

Level of educational aspiration and level of occupational aspiration were examined by forming groups on the basis of each of these variables and using discriminant analyses to determine the extent of the prediction of group membership that was possible using each of the value sets. These analyses were exploratory and conducted separately for females and males, as well as the total sample.

Level of educational aspiration. As described earlier, there were no sex differences in level of educational aspirations, but there were sex differences in weights assigned to about half of the values in each set.

Initially three groups were formed: Group 1 - graduate from a two-year college (or less); Group 2 - graduate from a four-year college; and Group 3 - professional or graduate school. Using the total sample of students, discriminant analyses were carried out separately for each value set. There were occupational, marriage, and parenthood values that appeared to discriminate among the three groups. However, Group 2 was not well classified in any of the analyses, perhaps as a function of the level of educational aspiration measure or the optimism of some students in putting themselves in the category of expecting to graduate from a four-year college. The occupational values provided the "best" discrimination, since 50% of the groups were correctly classified with the values, and lower percentages were correctly classified with the other two value sets (38% in each set). Between group discrimination improved only slightly when the groups were formed separately by sex.

Because Group 2 was not well discriminated, more extreme groups were formed to determine if the values might discriminate better between groups that were themselves more clearly differentiated. Two groups were established:

Group 1 - High school + technical school after high school + graduate from a two-year college + some college but less than four years;

Group 2 - Professional or graduate school.

Discrimination improved with these groups, and, as might be expected, the values that provided the best discrimination between the educational groups differed somewhat for females and males. Group 2 females, for example, were likely to give higher ratings to the occupational values of Independence and Leadership (in contrast to the values for Group 2 males of Variety and Field of Interest). The percent of grouped cases correctly classified was 75% for both the female and male students.

The marriage values provided some discrimination between groups with different educational goals, although there was no apriori reason to expect the marriage values to provide high discrimination. The percent of grouped cases correctly classified for female students was 62%, and for male students 74%. The parenthood values provided discrimination between groups similar to the occupational values (72% correctly classified for female students and 75% for male students). Sample values discriminating Group 1 and 2 female students were: women with higher educational goals tended to rate more highly the values Joy, A Sense of Accomplishment, and Friendship; women with lower educational goals tended to rate the values of A Stable Marriage and Future Security more highly.

The occupational and parenthood values provided somewhat better discrimination between the two educational groups than did the marriage values. Whether this is because the marriage values tend to have more common meanings for all women or because the marriage values are not well specified or because marriage values are unrelated to educational aspirations cannot be answered with the data at hand.

Level of career aspiration. Roe (1956) provided an analysis of level of occupation within each of her types or groups of occupations. Two groups were formed using her level scores (1-6) applied to occupations that students stated were ones they were likely to actually do. Group 1 was comprised of levels 1 and 2 (1 is the highest level), and group 2 of levels 3-6. Analyses were carried out for the total sample, for female students, and for male students. For the occupational values the percent of grouped cases correctly classified by the discriminant function was 63%; it was 60% for the marriage values and 52% for the parenthood values. These findings are not summarized here, because the groups were not well discriminated. Separate analyses by sex did not show much improvement in percent of cases correctly classified. It may be that further refinement of the level of career aspiration measure would yield an improvement in discrimination, since the use of extreme groups for the educational goals resulted in an improvement in classification. It may also be that the occupations are further into the future and hence are not differentiated by students themselves.

V-F. Involvement Level and Job-Child Scales

Two scales were used to examine the preference students had for their level of commitment to the areas of having a job and raising children (the Involvement Level (IL) Scale) and their emphasis toward one or the other of these activities (the Job-Child (JC) Scales). Both scales were developed by Lolagene Coombs (in press). The IL scale ranges from 1, a preference for least involvement to 7, a preference for most involvement in the total job and child domain. The JC scale ranges from 1, greatest preference for a job to 7, greatest preference for children, the job vs. child orientation domain. Female students responded to the choices (derived from a paired comparison study) in terms of what they would prefer for themselves, assuming the children were under 10 years of age and the job was for pay outside the home. Males were asked which combinations they would most like for their wives to have (given the same assumptions).

An ANOVA for the IL scale showed sex, ethnic and sex x ethnic effects. Female students preferred a greater degree of total involvement in the entire job and child domain than male students said they wanted for their wives (means of 4.72 and 4.01, respectively). For the JC scale there were significant sex, ethnic and ethnic x SES effects. Males preferred a higher degree of child orientation than females preferred for themselves (means of 4.83 and 4.12, respectively). Within ethnic groups, white students had a greater preference toward children than black students. The interaction occurred when middle SES Hispanic students had the highest degree of preference for children (compared to a job), and for low SES students, white students had the higher preference for children. Correlation between the IL and JC scales is low (-.123 for the total sample, and nonsignificant when computed within sex groups (-.080 for females and -.097 for males).

Further analyses of the Coombs' scales involved examination of the variables that might predict each scale. These analyses were carried out separately by sex. Using a combination of variables (work pattern of full-time career, number of years of full-time work before age 41, age completing education, expected working hours, and the occupational value High Income), a stepwise multiple regression yielded a multiple R = .447 for females. Different variables were identified as predictors for males, and the multiple R was .392. The variables predictive of the IL scale for women centered on work and occupational variables. The combination of variables differed for males, involving both work patterns for their spouses and their own ratings for children, as well as Financial Security (a marriage value) and A Sense of Pride (a parenthood value).

The variables that predicted the Job-Child Orientation Scale differed for females and males, and the prediction was better for females (multiple R = .609) than for males (multiple R = .388). For female students the variables that predicted a child orientation (high end of the JC Scale) as opposed to a job orientation were: A higher number of weights (circle segments) for children (Question 49, Appendix 2); fewer number of years of full-time work by age 41; a lower percent of responsibility for the wife to earn money in a family with children; higher ratings to the marriage values of Children and A Permanent Companion; and a higher rating to the work pattern, Not Working. For the JC scale, predictor variables included variables related to both children and work, as opposed to the findings for the IL scale. For males, the variables that predicted the JC scale were, with one exception from the three sets of values: marriage values of Financial Security and Children, the occupational value of Security, the parenthood value of Friendship, and a view of the responsibility to earn a salary that supports a family as predominantly that of the man in the family.

Number of children desired. A variable related to the job-child trade-off is the number of children desired. Further sets of regression analyses were carried out for number of children as the dependent variable. The multiple R for female students was .339 and was .390 for male students. The variables entering the prediction equation for female students were: Number of weights (circle segments) for children; the IL scale; the marriage value of Children; and a lower school average. Predictor variables for males were: a child orientation on the JC scale; a higher rating on the marriage value of Your Own Home and a lower rating on A Feeling of Leadership; and more traditional views of the family activities of Mowing the Lawn, Mending Clothes, and Reading to Children.

Relative importance of family and work. The Circle task (Question 49) asked students to weight the importance of work, marriage, children and "other" by assigning segments of a circle according to the importance of each area in relation to the others. Small but statistically significant differences were observed for work, marriage, and children. The marriage weights differed by ethnic group, with black students in this sample tending to assign a lower weight (number of circle segments) to the area of marriage. ANOVA for work showed significant ethnic and sex x SES group differences. Black students tended to weight work as more important than did the other two groups; middle SES female students weighted work slightly more important than did male students but this order was changed for low SES students, where female students gave a lower weight to work than did male students. The ANOVA for Children had a significant sex x SES interaction, with middle SES group females giving a lower weight than males to Children, and low SES group females giving a higher weight than males to Children.

V-G. Sex Roles, Family Activities and Responsibilities, and Timing of Family and Work

Findings for sex-role attitudes are based on the responses to a list of activities for families with children that were rated on a five-point scale from only a woman's responsibility to only a man's responsibility (adapted from Eagly and Anderson, 1974). Findings are also based on a question (number 56) that asked students to allocate percents to family responsibilities. The last findings in this section are based on a series of questions (55) about the times when students expected to be in school, work, marry, and have children.

Sex roles and family activities. Twenty-two activities were rated, e.g., Mending Clothes and Repairing Household Appliances, on the 1 to 5 scale. Many items showed traditional allocation of sex roles. Mending Clothes was assigned mainly to women (55%) or only to women (14%); Repairing Household Appliances was considered to be mainly a man's responsibility (56%) or only to men (13%). Three-way ANOVA's were examined for each activity item. Although there were often significant differences in the means for the groups, the actual differences in mean ratings were not large. There was, however, a direction and consistency to the differences, and some group differences were found for every activity item.

The direction of the differences on the thirteen items with significant sex main effects showed that the ratings given by female students tended to be less traditional, that is, less sex-role stereotyped, than those given by male students. Differences among ethnic groups were not as consistent (nine items had differences among ethnic groups). SES group differences for the ten activity items with differences were very consistent. Middle SES students gave ratings that were less traditionally sex stereotypical. Three items with sex x ethnic group interactions also had a consistent pattern: female Hispanic students were the most traditional in responses of the three female groups and white male students were the most traditional of the three male groups.

Since 22 items were administered, and many appeared overlapping, factor analyses were carried out. The analyses were done for the total group and each sex group. Six factors were identified for the total sample and male students. Seven factors were found for the female sample. The main factors in each analysis were similar and appeared to sample three general areas: homemaking, children, and family decision making or the marital relationship. The factor analyses suggested that the items in the area of homemaking activities were well sampled, both for females and males. Items concerned with children were less well sampled, and could be expanded for better definition of the one or two factors that appeared involved (a caretaker function and perhaps more of a development or teaching function). The third area, husband-wife roles in family economics and decision making, appeared to be represented by three items and could be expanded for further definition of this area in future research.

Division of family responsibilities. Attitudes toward sex roles were also examined by Question 56, What do you think is the best arrangement for dividing up (earning money, keeping house, caring for children) responsibilities? The means (of percents assigned to the husband and wife) followed traditional patterns for Earning Money and Keeping House. An unexpected result was the nearly equal allocation of responsibility to husband and wife in Caring for Children. All three main effects were significant for the area of earning money, with female students, black students, and middle SES students less traditional in response.

Timing of family and work. Student plans for education, marriage, children, full-time work and part-time work between the ages of 16 and 41 were elicited by means of time lines (Question 55, Appendix 2). The mean age estimated for completion of high school was 17.5, and the age of completing education ranged from 17 to 34. The mean age for marriage was 25 years, with a range from 18 to 40, and the mean age at birth of first child ranged from 16 to 40, with a mean of 26.7 years. Ethnic and SES group differences were found for age of high school graduation, completing education, and marriage, with sex differences found for the latter variable also. Mean age expected for marriage was 25.81 for boys and 24.17 for girls. Middle SES students and black students also expected to marry at later ages than the other groups.

The mean age at which these 11th-grade students expected to begin full-time work was 23.8, with a range from 14 to 40 years. More males expected to start full-time work at earlier ages, and it was primarily women who forecast a re-entry or resuming of full-time work at some age. And, the age distribution for part-time work was more scattered for females than males, with only a small percentage of males expecting to do part-time work after age 25.

The data on work patterns on the time lines are summarized in one variable, number of years of full-time work before age 41. Sex, ethnic, sex x ethnic and sex x SES group effects were found. The mean number of years of full-time work before age 41 was 17 for male students and 10.2 for female students. White females expected to have the fewest number of full-time work years, and Hispanic males expected to have the fewest years (in agreement with their later expected age at graduation, and so on). Low SES females expected to have a lower number of years of full-time work than middle SES females (9.84 vs. 10.57) and middle SES males expected to have less time in full-time work than low SES males (16.29 vs. 17.75).

V-H. Sex-Typical and Sex-Atypical Groups

The findings in this section are based on an analysis proposed by Norris, Katz, and Chapman (1978) using the occupational values in SIGI (Katz, 1973). The analysis was developed in order to examine the extent to which sex differences, as reflected in sex-typical and sex-atypcal groups defined by the occupational values, might be reflected in other aspects of the career decision-making process (defined as process and outcome variables in SIGI). In the present study findings are reported for a number of sex-role related variables, where sex-typical and sex-atypical groups have been formed for each of the three value sets. Values used to form the sex-typical and sex-atypical groups were:

Occupational Values: sex = -(Helping Others)-(Variety)+(Leadership)

Marriage Values: sex = -(Financial Security)-(Emotional Support)-(Prestige)

Parenthood Values: sex = -(Variety)+(A Stable Marriage)-(A Chance to Express Love)

The variable sex was coded 1 = female and 2 = male, so the higher value being predicted is "male." Predicted sex score distributions were dichotomized at the median and predicted sex and actual sex compared to form four groups: female sex-typical (FT); female sex-atypical (FA); male sex-typical (MT); and male sex-atypical (MA).

Two-way ANOVA's using the factors actual sex vs. typical/atypical were computed and examined principally for significant interactions. The interaction would indicate that the main factors did not operate consistently, and, for example, that atypical females (as predicted by one of the value combinations) would have a mean score closer to the sex-typical male than to the sex-typical female. These groups are labeled below.

	Sex	
	Atypical	Typical
Female	FA	FT
Male	MA	MT

Findings from each of the value analyses are highlighted separately.

1. Occupational values. Variables for which the sex-typical/sex-atypical analyses showed a significant interaction were: number of children desired; the Job-Child Orientation Scale of Coombs; the estimate, How good a student are you?; number of children in family; the marriage values--A Helpmate, A Permanent Companion, and A Feeling of Leadership, and the parenthood value, Variety. For example, the means for the four groups on the number of children desired were:

	A	T
F	2.67	3.09
M	2.65	2.62

The mean for FA of 2.67 was closer to the mean of the MT group of 2.62 than it was to the mean of the FT group mean of 3.09. Using the occupational values on which the typical/atypical groups were distinguished, the sex-atypical females who tended to desire a smaller number of children were more likely to give a higher weight (ratings) to Leadership, and lower ratings to the other two values (i.e., to be more like the male typical group). This pattern could occur in another form, as it did, for example, on the JC scale. Here the means for the four groups were: FA = 3.75; FT = 4.32; MT = 4.80; and MA = 4.88. The MT and MA group means were much closer than the FA and FT means on the JC scale. The FA mean was more toward the job end of the JC scale than was the FT group mean.

2. Marriage values. The marriage values that were used to predict sex, with F = 1 and M = 2, were -(Financial Security), -(Emotional Support), and -(Prestige). The variables that differentiated the groups formed on the basis of the values were: number of children; the Job-Child Orientation Scale; part-time job as a work pattern; the occupational values of Prestige and Variety; and the parenthood values of A Sense of Pride and A Stable Marriage. In examining the means for the interactions, it was apparent that the marriage values did not function in the same manner that the occupational values did. The use of the marriage values to separate the sexes by a regression equation resulted in all negative weights, rather than a combination of positive and negative weights as occurred for the occupational values. And the FA and MT groups

were not as consistently ordered (closely related) as for the occupational values. The multiple R for the marriage values was lower than that for the occupational and parenthood values (R = .24 for the marriage values; R = .31 for the occupational and parenthood values).

3. Parenthood values. There were more variables showing significant interactions for the parenthood values than occurred for either the occupational or marriage values. The parenthood values that were in the prediction equation to form the four groups were: -(Variety), -(A Chance to Express Love), and +(A Stable Marriage). Variables for which there were interactions included: estimates of high school class standing and average, and planned level of education; level of occupational aspiration; work patterns of part-time career, full-time job, and part-time job; age at completing education, marriage and second child; the occupational values of Helping Others, Variety, Leisure, and Early Entry; and the marriage values of Emotional Support, A Close Physical Relationship and A Normal Life. The interaction patterns tended to follow those for the occupational values, with the FA and MT groups closer in numerical value than the FA and FT groups. The FT and MA students tended to be better students, to plan for higher levels of education and occupations, to desire a career rather than a job, and to plan to marry and have children at later ages than the FA group. The FT group also tended to rate slightly higher the occupational values of Helping Others and Variety but to give lower ratings to Early Entry.

The parenthood values, in terms of selecting predictors and defining sex-typical and sex-atypical groups, functioned in the same general manner that the occupational values did. The patterns of interactions were more consistent in the order of the relationships among the four groups than they were for the marriage values.

I. Future Research

The findings of the present project suggest several avenues of further research. Among the possibilities are further study of the marriage and parenthood values themselves, particularly with respect to the meaning individuals have given the values in each set. As mentioned earlier, the literature available when the values in these areas were developed was typically fragmented and informal in nature. Small scale studies using groups of both sexes of different ages will also be important. The present study varied ethnic and SES groups, but controlled on age, using only 11th-grade students. Studies with college age students and adults in the 25-35 age range may particularly help to clarify the marriage values for their salience to individuals when the decision of marriage is closer in time.

Another approach to refining the marriage and parenthood values is through examining their relationship to clinical and counseling concepts of personal growth and development. A framework such as that of Jane Loevinger's for ego development may provide re-wordings or re-conceptualizations of the marriage and parenthood values in relation to adult development.

Turning from this more individualistic approach to research on the values, the next step with many of the variables in the present study, including the values, is to view them in relation to educational and occupational decisions, along with such variables as number of children desired and number of years of full-time work planned by age 41. This will involve developing path or causal models and testing them against the data. Also, there are clearly a number of other variables related to career decisions that are not included in current approaches (models) of career development and career decision-making theory. These variables should be included, to provide a better link between the individual psychology of the values and career development theories, and the sociological perspectives on status attainment, occupational choice, and labor force participation. These sociological views provide a reminder to psychological theorists of the extent of occupational segregation and the need to be explicit in suggesting the influences and processes which result in the statistics on occupational segregation. Harren's (1979) recent work provides the best example of movement in this direction; the goal is, as he has defined the process, to identify psychological variables that are better predictors than sex of the content of career decision making (as reported in Kass, 1979).

J. Implications for Practice

Two quotations are given here, to point to the practical need to integrate the sex-role related values into present counseling perspectives. The first is from Jessie Bernard's study of motherhood:

> I was 40 years old, says a suburban housewife, before it dawned on me that I really had had no choice about becoming a mother. Not that I didn't know all about contraception but that it had never occurred to me that anything else was possible. (Bernard, 1974, p. 24)

The second quotation is from an article that appeared in the New York Times of January 7, 1977, entitled "Singles in the Suburbs: Safety vs. Loneliness." Parts of the interview dealt with a particular 27 year old woman and her thoughts about work:

> I grew up thinking you get married, ...So, for a long time...I sort of held my life in suspension, as if the real thing hadn't begun yet. I didn't buy silverware--hopechest stuff--because I figured, that's the sort of thing people give you when you get married.

> Then one day about two years ago it hit me like a ton of bricks: while I was waiting around, life was passing. I won't wait any more for someone else to give me things. If I want silverware, or furniture, or flowers, I'll buy them for myself.
>
> I wasn't really committing myself to the idea of a career, either, because I kept thinking "this is temporary."
>
> (The woman had worked as a dental technician and then decided to go back to school to study nursing.)
>
> I was a very good dental technician....And I had a very good job that offered me excellent pay and with a tremendous amount of security. But at some point those things just weren't working any more. I may be working 40 more years, so it had better be work I like to do. (The interview continues and at a later point the woman says:)
>
> I can't define myself in terms of another person, ...so I've established my own personality more firmly...(at a dinner party where somebody remarked, "Don't worry, you'll find someone some day," I told her, "I want you to know, my sole aim in life is not to get married.") I haven't set a time limit; and if I'm not married by the time I'm 30, I don't intend to go jump off a bridge. And if the time comes that I want a child, and I'm still not married, then I'll have one on my own.

Several key concepts are embedded in the remarks of these women: options and choice in the first, and career commitment and self-identity in the second. The manner in which these concepts are tied to sex roles for women of motherhood and marriage or homemaking are reminders of the importance of traditional views of sex roles.

These traditional views are shifting, but the ready assumptions of almost all of the 600 11th-grade students that they will marry and have children and work is not in accord with statistics on marriage and divorce and the earlier entry of mothers with young children into the labor force. There are several problems created by changing labor force statistics and more slowly changing attitudes in the area of sex roles, particularly the discrepancy in attitudes between men and women (with men more conservative or traditional in their sex role attitudes). Among the problems are the concepts of role strain or role proliferation that so far apparently attaches disproportionally to women (Fogarty, Rapoport & Rapoport, 1971). These ideas stress the need for career decision-making approaches to concern themselves with the content or career that is chosen, and also with the marriage and family expectations of men and women. The articulation of the various roles of adults--worker, marriage partner and homemaker, and parent must be examined by students and counselors, perhaps going so far as to model or simulate the manner in which trade-offs in role demands can be negotiated by marriage partners and conflicts resolved (see Scanzoni, 1978).

The data on appropriate roles and activities for men and women as perceived by students suggest that there are many students for whom it would be valuable to consider these various adult roles jointly, and to identify the values that may be satisfied in different roles. The occupational values are used as a key to aid the individual decision maker in SIGI (Katz, 1973). The marriage and parenthood values can be applied in practice with the occupational values to assist women in particular, to more clearly understand the needs they expect to satisfy in each adult role. The assumption here, untested as yet, is that use of the three value sets will result in more effective career decision making. "Effective," for evaluation purposes, is defined as increasing the likelihood that more occupations, traditional and nontraditional for women, will be explored; that fertility plans will be related to desired education and occupation, and that these plans will be in agreement with expectations for labor force participation.

The values and sex-role related variables included in the present study illustrate the change in the scope of life decisions which career theories must encompass in order to be meaningful for women. Some values in each of the three sets are related to these career-choice variables. There are no judgments to be placed on individual choice. The goal of using the values is, as Katz has suggested, to attain self-knowledge of values in the service of individual choice.

CHAPTER VI

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APPENDIX I

Marriage and Parenthood Values

Used in Pilot Studies

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APPENDIX 1-1

Marriage Values

Having Enough Money
(Security)

Some people get married because it is important to have enough money and feel secure. If both people work and earn money, the couple can do many things they couldn't afford on their own. Being married to someone who earns a good income can let you have many things and do many things that you couldn't manage on your own.

Having Someone to Rely on
(Emotional Security)

Some people get married so they can feel taken care of emotionally. People need to know they can open up completely with someone who loves them. Having someone to rely on may be important to you.

Social Respect

When you get married other people see you as an adult, not a child. Going out can be easier because parties are often organized for couples. Employers think married workers are more stable and more likely to do a good job. If you are married, people may respect you more. Social respect may be important to you.

Do the Natural Thing

Some people feel that being married is the natural way, what men and women are supposed to do. Getting married is something many people look forward to all their lives. When they finally get married, they feel they've taken an important step in life. Once you are married the rest of your life is easier. You can settle into marriage like most other men and women and do the natural thing.

Being a Complete Person
(Defining the Self)

Some people feel that they are a complete person when they get married. Knowing you are part of a "Mr. and Mrs." can be very important. Some people define or see themselves mostly in terms of their marriage. If you commit yourself entirely to someone else you can get a great deal of satisfaction from their successes.

Independence

Some people get married so they will be more independent; that is, they can have their own home and can decorate or build things in it and develop it in their own way. Marriage provides the satisfaction of living in a setting developed and kept up by oneself. Once you are married you are no longer dependent on your parents and you are your own boss. If you want to be on your own and that's why you get married, independence is important to you.

Having a Helpmate
(Personal Support)

Some people get married because they want a helpmate. They want to have someone to take care of things so that they can be free to do whatever they want. They feel it is important to count on their partner for encouragement and personal support, regardless of which partner makes the most money or is more successful. Having a helpmate may be important to you.

Companionship

Some people get married to have a permanent friend and companion. They can do things together all their lives and learn from each other. The love that grows when people know each other for a long time makes this friendship especially important to both people. Companionship may be important to you.

APPENDIX 1-2.

Parenthood Values

Accomplishment

Some people think it is important to be a parent because being a parent will be a central focus for their whole life as adults. They want to create new human beings. They feel that children give a sense of permanence and continuity of the family. You can leave something of yourself to the future. Having a child gives you a feeling of accomplishment of something important as a woman or man.

Fulfilling the Natural Role

Some people feel that the natural role of adults is for men and women to become parents. They feel more complete as adult men and women. Having children helps you get along with all your other married friends. If you don't have children, people think there is something wrong with you.

Responsibility

Some people feel it is important to be a parent because they like the feeling of being responsible for others--with infants and children dependent on them as parents. When children grow up and make demands on you, you can feel a sense of responsibility because you can meet these emotional and financial demands of being a parent.

Friendships

Some people think it is important to be a parent because they will value their children as close friends, and friendship with children is important. They feel that when the children grow up they will be able to talk with them as they would to an understanding friend. As your children grow up, you can go places and do things with them, and your children will be like your other friends.

Leadership

Some people feel that it is important to be a parent because they can provide leadership as children grow up. Being a parent is important because parents provide leadership as children grow. You value the part you had as parents in influencing your children's development.

Parenthood Values (continued)

Stability

Some people feel that it is important to become parents because it makes them feel closer as marriage partners. You feel there is security in having children because then your own relationship with your partner becomes more stable and close.

Parenting (Love)

Some people want to be parents because they feel it is very important to take care of young children. They get a great deal of pleasure from hugging and kissing and cradling babies. They enjoy protecting and taking care of a helpless child. They feel needed and feel they have a great deal of love to give young children.

Challenge

Some people want to be a parent because being a parent gives you a chance to raise a child in the right way--which is very rewarding. You can try out your own ideas about childrearing. You can avoid all the things your own parents did poorly when you were growing up. The challenge of raising children may be important to you.

Joy

Children can be lots of fun because you can play with them. They bring laughter and joy into a household. A home without children can be dull and dreary. You can have a sense of joy with your own children.

Future Security

Some people feel that when they get older they want to have children to turn to for help. It would be hard to be old, sick and all alone--but if you have children, there will always be someone who loves you and cares about what happens to you. Your future security will be taken care of if you have children.

APPENDIX 2

Interview Schedule

APPENDIX 2

Interview Schedule

CASE Institute for Research and Development
in Occupational Education
Graduate School, CUNY

Card No. 1 ___ ___ ___ ___ ___
101

Interview Schedule: Read aloud material in all CAPS
Circle appropriate number for response

Career Decision Making Study

I. Introduction: MY NAME IS ...., AND I AM WORKING ON A PROJECT ON CAREER DECISION MAKING. PLEASE ASK QUESTIONS AT ANY TIME. I APPRECIATE YOUR WILLINGNESS TO HELP US.

WHATEVER YOU SAY WILL BE CONSIDERED COMPLETELY CONFIDENTIAL. (if tape recording interview: WITH YOUR PERMISSION, I WILL USE THIS TAPE RECORDER SO I CAN ANALYZE THE QUESTIONS AND ANSWERS LATER.) I DON'T THINK YOU WILL FIND ANY OF THE QUESTIONS TOO PERSONAL OR OFFENSIVE IN ANY WAY. BUT YOU SHOULD FEEL FREE TO REFUSE TO ANSWER ANY QUESTION FOR ANY REASON AT ALL.

I'D LIKE TO BEGIN WITH SOME GENERAL QUESTIONS ABOUT YOU.

A. Name________________________ Sex: 1 Female 2 Male ___ 106

B. Record time____________________

1. WHAT GRADE ARE YOU IN AT SCHOOL?____________ GRADE

2. HOW OLD ARE YOU?_________YEARS. (If any question, ask how old were you on your last birthday?)

1-less than 16 yrs 2-16 yrs 3-17 yrs 4-18 yrs 5-19 yrs. + ___ 107

3. WHERE WERE YOU BORN? __________________ (state or country) ___ 108

4. WHERE WAS YOUR MOTHER BORN? __________________ (state or country) ___ 109

5. WHERE HAVE YOU SPENT MOST OF YOUR LIFE? __________________

____ (city, state or country) ___ 110

11/7/77

6. DO YOU USE ANOTHER LANGUAGE BESIDES ENGLISH AT HOME?

1 No If yes, which? 2 Spanish 3 Italian 4 Haitian ____ 111

5 Other ______________________________
record

7. ARE YOU MARRIED? DO YOU HAVE CHILDREN? ____ 112

1 Yes 2 No 1 Yes (number________) 2 No ____ 113

8. (Circle ethnic group) W B H Other

1 2 3 4 ________________________ ____ 114

If any question on #8, ask student: WHAT ETHNIC GROUP ARE YOU A MEMBER OF?

9. WHAT IS YOUR FAMILY'S RELIGION?

1 None 2 Catholic 3 Protestant 4 Jewish ____ 115

5 Other ____________________________
record

10. DO YOU LIVE WITH YOUR PARENTS? ____ 116

1 Yes

2 No

DOES YOUR FATHER WORK? 1 Yes fulltime ____ 117
2 Yes parttime
3 No

If no, reason: 1 Deceased (how long ago?) ______________years
2 Living apart/divorced ________________years
3 Retired ________________years
4 Disabled
5 Other ________________

11. WHAT IS THE MAIN KIND OF WORK YOUR FATHER DOES? (was, did) ____ 118

(Stepfather, Foster Father)
Circle

Ask for exact occupation and get answers to all questions. ____ 119

What is the specific industry or business (product, etc.) ____ 120

____

Does he work for himself? Yes No ____ 121

Did he need special education for his job? Yes No
What? ______________________ ____ 122

Manage for someone else? Yes No

What does he do at work? ______________________

____

What is the main activity (s) he does at work? ______________

____

What are his most important duties? ______________________

____

How many people does he supervise? ________

12. HOW MUCH SCHOOL DID YOUR FATHER (foster or step father) COMPLETE? ____ 123

1 None or some grade school
2 Completed grade school
3 Some high school, but did not graduate
4 Graduated from high school/high school equivalency
5 Technical or business school after high school
6 Some college but less than 4 years
7 Graduated from a 4 year college
8 Attended graduate or professional school
9 Don't know

13. HOW MUCH SCHOOL DID YOUR MOTHER (foster or step mother) COMPLETE? ____ 124

1 None or some grade school
2 Completed grade school
3 Some high school, but did not graduate
4 Graduated from high school/high school equivalency
5 Technical or business school after high school
6 Some college but less than 4 years
7 Graduated from a 4 year college
8 Attended graduate or professional school
9 Don't know

14. DOES YOUR MOTHER WORK? ______ 125

1 Yes, fulltime
2 Yes, partime (less than 20 hours per week)
3 No
4 No, deceased
5 Don't know/living apart
If no, HAS SHE WORKED IN THE PAST?
6 Yes
7 No
If yes, reason for not presently working: ______________________

____

Will she work in the future?
1 Yes
2 No

15. WHAT IS THE MAIN KIND OF WORK YOUR MOTHER (foster or step mother) DOES? (was, did) ______ 126

Ask for exact occupation and get answers to all questions. ______ 127

What is the specific industry or business (product,etc.)

____ ______ 128

Does she work for herself? Yes No

Did she need special education for this job? Yes No ______ 129
What? ______________________

Manage for someone else? Yes No ______ 130

What does she do at work? ______________________

____

What is the main activity (s) she does at work? ______________________

____

What are her most important duties? ______________________

____

How many people does she supervise? __________

16. WHO IS THE MAIN INCOME EARNER IN YOUR HOME? ____ 131

1 Father
2 Mother
3 Other ________________ (If other, repeat questions in #15 to determine occupation of head of household). *Record on back of this page.
record

(If mother has worked, ask:)

17. Mother's work pattern: HAS YOUR MOTHER ALWAYS WORKED? ____ 132
(Probe for category)

1 Continuously and full time (since beginning of work)
2 Mostly continuously (short interruptions)
3 Off and on, stopping work for periods of one year or more
4 Only briefly, less than four years altogether
5 Uncertain, Don't know
6 Other (Describe) ____

____

Work and Family: (answer all questions)

18. DID YOUR MOTHER WORK	Yes	No	Uncertain	
1 BEFORE MARRIAGE?	___	___	_______	____
2 BEFORE HAVING A CHILD (CHILDREN)?	___	___	_______	133
3 WHILE YOUNGEST CHILD WAS 1 TO 3 YEARS OLD?	___	___	_______	____ 134
4 WHILE YOUNGEST CHILD WAS IN DAY CARE/ NURSERY SCHOOL (AGES 3-5)?	___	___	_______	____ 135
5 WHILE YOUNGEST CHILD WAS IN ELEMENTARY SCHOOL?	___	___	_______	____ 136
6 WHILE YOUNGEST CHILD WAS 12 YEARS OLD (AND OLDER)?	___	___	_______	____ 137

7 OTHER (DESCRIBE) ____ ____ 138

____ ____ 139

19. HOW MANY CHILDREN ARE THERE ALTOGETHER IN YOUR FAMILY? __________ ____ 140

20. HOW GOOD A STUDENT WOULD YOU SAY YOU ARE? WOULD YOU SAY YOU ARE...

141

(read the first four alternatives to student)

1 ONE OF THE BEST STUDENTS IN YOUR CLASS
2 ABOVE THE MIDDLE OF THE CLASS
3 IN THE MIDDLE OF YOUR CLASS
4 JUST GOOD ENOUGH TO GET BY
5 Don't know
6 No answer

21. WHAT IS YOUR SCHOOL AVERAGE? (Circle)

142

9 A(93-100) 8 A-(90-92) 7 B+(87-89) 6 B(83-86) 5 B-(80-82)

4 C+(77-79) 3 C(73-76) 2 C-(70-72) 1 D(69 or below)

22. HOW MUCH EDUCATION DO YOU THINK YOU WILL HAVE?

143

1 Don't care if I finish high school or not
2 Finish high school only
3 Technical, nursing or business school after high school
4 Graduate from a 2-year college
5 Some college but less than 4 years
6 Graduate from a 4-year college
7 Professional or graduate school
8 Don't know
9 Other ______________________________

23. WHAT PROGRAM ARE YOU ENROLLED IN AT SCHOOL? (adjust for school titles of programs or course) ______________________ 144
(record)

1 General
2 College preparatory (academic)
3 Commercial or business
4 Vocational
5 Agricultural
6 Industrial arts
7 Other ______________________

24. HAVE YOU EVER WORKED? FOR PAY, NOT CHORES IN YOUR HOME. 145

1 Yes, fulltime
2 Yes, parttime
3 Only summer fulltime
4 Only summer parttime
5 Summer and part-time
6 No

25. WHAT TYPE OF FULLTIME WORK? ______________________ 146

WHAT TYPE OF PARTTIME WORK? ______________________ 147

26. (naep) HAVE YOU EVER THOUGHT ABOUT WHAT KIND OF JOB YOU WOULD LIKE IN THE FUTURE? 1 Yes 148

2 No

27. WHAT JOBS HAVE YOU CONSIDERED DOING AFTER YOUR GRADUATION?
(Probe for 5 jobs) (If fewer than 5 jobs ask):
ARE THERE JOBS YOU ONCE CONSIDERED BUT DON'T WANT ANY LONGER?

___ 149

____________________ ____________________

____________________ ____________________

____________________ ____________________

28. WHICH ONE ARE YOU MOST INTERESTED IN DOING? (Read aloud the jobs) ___ 150 ___ 151

29. WHAT OCCUPATION (JOB) DO YOU THINK YOU WILL ACTUALLY DO? ___ 152 ___ 153

WHY?

___ 154 ___ 155 ___ 156

Ask for exact occupation: ____________________

What is the specific industry or business? ____________________

____

Will you work for yourself or for someone else? ____________________

What are the main duties or activities you would have in this occupation (Job)? ____________________

____

____

HOW DID YOU DECIDE ON THAT JOB, BEING A ____________________?
HOW DID YOU KNOW YOU WANTED TO BE A ____________________?
DID YOU TALK TO SOMEONE, OR DO SOMETHING, OR HAVE A PARTICULAR EXPERIENCE?

____

____

____

____

30. DO YOU KNOW ANYONE WHO IS A (#29)?

1 No 2 Yes, a parent 3 Yes, a close friend or relative ___ 157

4 Yes, someone else ______________ ______________
record

31. WHO DO YOU TALK TO ABOUT YOUR OCCUPATIONAL PLANS? ___ 158

32. WHO DO YOU TALK TO ABOUT YOUR EDUCATIONAL PLANS? ___ 159

33. WHO DO YOU TALK TO ABOUT YOUR MARRIAGE AND FAMILY PLANS? ___ 160

34. HAS A TEACHER EVER TALKED TO YOU ABOUT ANY KINDS OF WORK FOR YOU?
1 Yes 2 No WHAT?

161

35. HAS A COUNSELOR EVER TALKED TO YOU ABOUT ANY KINDS OF WORK FOR YOU?
1 Yes 2 No WHAT?

162

36. WHAT THINGS DO YOU CONSIDER IMPORTANT IN DECIDING WHAT KIND OF WORK YOU WANT TO DO?

37. WOULD YOU LIKE TO GET MARRIED?
DO YOU PLAN TO HAVE CHILDREN? 1 Yes
2 No

163

37a. HOW MANY CHILDREN WOULD YOU LIKE TO HAVE?____________________________

164

38. WILL HAVING A FAMILY MAKE A DIFFERENCE IN YOUR PLANS FOR WORK?

165

1 Yes 2 No 3 Uncertain

HOW?

WHY?

39. IF BY SOME CHANCE YOU WERE TO GET ENOUGH MONEY TO LIVE COMFORTABLY WITHOUT WORKING, DO YOU THINK YOU WOULD WORK ANYWAY?

166

1 Yes 2 No 3 Uncertain 4 Other ____________________

WHY DO YOU THINK YOU WOULD (or WOULD NOT) WORK?

WHICH ONE OF THE FOLLOWING WOULD YOU PREFER IF YOU HAD ENOUGH MONEY TO LIVE COMFORTABLY WITHOUT WORKING? ____ 167

1 TO BE IN CLUBS OR DO VOLUNTEER WORK
2 TO SPEND TIME ON HOBBIES, SPORTS
3 TO WORK PART TIME
4 TO WORK FULL TIME
5 TO CONCENTRATE ON YOUR HOME OR FAMILY
6 OTHER ______________________________

40. WHAT ADULT DO YOU KNOW PERSONALLY WHO IS LIVING A LIFE YOU WOULD LIKE TO HAVE? (probe--Relationship to student and age) ____ 168

WHO?____________________ RELATIONSHIP_______________

WHAT DO YOU LIKE OR ADMIRE MOST ABOUT____________________?

____ 169

HOW WOULD YOU LIKE TO BE LIKE_________________________?
(open, than probe--answer all questions below:) ____ 170

____ 171

IS__________ married? single? divorced? widowed?

Number of children ________?

Occupation ____________________________

Work: Fulltime? Part-time?

NOW I'D LIKE TO ASK YOU SOME QUESTIONS ABOUT WORK, MARRIAGE AND CHILDREN THAT RELATE TO CAREER DECISION MAKING.

177 V
178 C
179 D
180 1

Card 2:

____ ____ ____ ____ ____
201 202 203 204 205

40a. Work Pattern: THESE CARDS DESCRIBE IDEAS PEOPLE HAVE ABOUT CAREERS AND JOBS. (Place cards in horizontal order with "A" on S's left.) READ THEM TO YOURSELF AND TELL ME IF YOU FIND ANYTHING YOU DON'T UNDERSTAND (Student reads). DO YOU HAVE ANY QUESTIONS?

FOR EXAMPLE, CAN YOU TELL ME THE DIFFERENCE BETWEEN A CAREER AND A JOB? (If S doesn't recognize difference between "career and job" say "A career is the kind of job you do because you really like to--A job is something you do mostly for money.")

O.K. NOW WHICH DO YOU LIKE THE BEST? PUT THE CARD THAT YOU LIKE THE BEST OVER HERE--(point to the top--S's should line up cards vertically)--THE ONE YOU LIKE NEXT BEST RIGHT BELOW IT--AND SO ON--AND THE ONE YOU LIKE LEAST AT THE BOTTOM. (After recording responses, point to the "most important" card and say, this choice (name) is most important to you and this choice (point and name) is least important.

Record Letters

1 ____________ (Most important)		A	____ 206
2 ____________		B	____ 207
3 ____________		C	____ 208
4 ____________		D	____ 209
5 ____________ (Least important)		E	____ 210

IS THERE ANYTHING ELSE THAT YOU WOULD PREFER TO DO THAT IS NOT ON THE CARDS? WHAT?

NOW, HOW MUCH DOES EACH OF THESE SITUATIONS APPEAL TO YOU? HERE IS A SCALE SHOWING NUMBERS FROM ZERO TO EIGHT. (Order cards with A on top.)

0	1	2	3	4	5	6	7	8
I would dislike this very much		I would dislike this		It's okay		I would like this		I would like this very much

HERE IS THE CARD ABOUT HAVING A FULLTIME CAREER. DECIDE HOW MUCH YOU WOULD LIKE OR DISLIKE THIS. CHOOSE THE NUMBER FROM THE SCALE THAT BEST DESCRIBES THE WAY YOU FEEL AND WRITE THE NUMBER BELOW. OKAY? DO THE SAME FOR ALL FIVE WORK ALTERNATIVES.

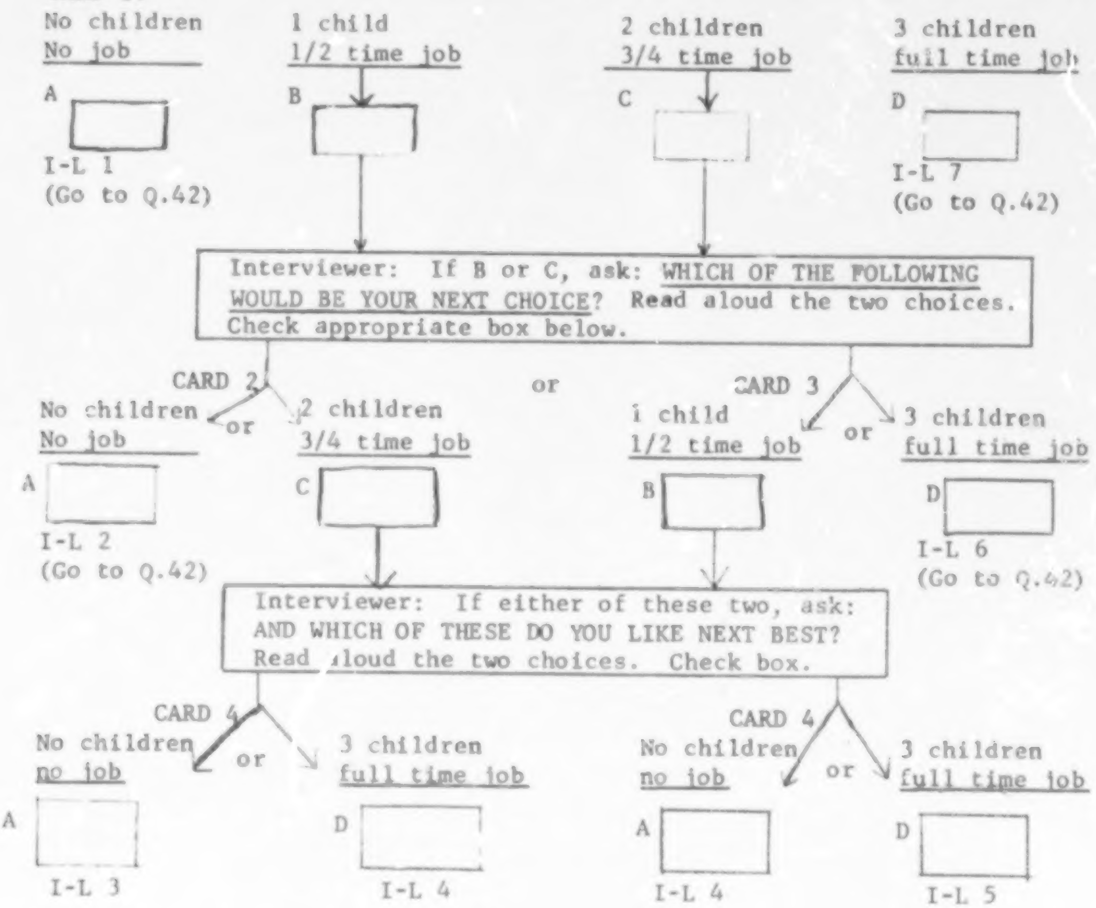
Column 1		
________	FULLTIME CAREER	____ 211
________	PART-TIME CAREER	____ 212
________	FULLTIME JOB	____ 213
________	PART-TIME JOB	____ 214
________	NOT WORKING	____ 215

41. JOBS AND CHILDREN

MOST PEOPLE HAVE THOUGHT ABOUT POSSIBLY HAVING CHILDREN SOME DAY. SOME FEEL THERE ARE CONFLICTS BETWEEN WORKING AT A JOB AND HAVING CHILDREN: OTHERS DO NOT FEEL THIS WAY. WE WANT TO FIND OUT HOW YOU FEEL ABOUT VARIOUS JOB AND CHILD CARE POSSIBILITIES (FOR YOUR WIFE)*, JUST WHAT YOU THINK YOU WOULD LIKE (FOR YOUR WIFE)* IF YOU GET MARRIED. IF YOU COULD HAVE THINGS JUST THE WAY YOU WANTED THEM, WHICH OF THESE FOUR CHOICES WOULD YOU LIKE THE BEST (FOR YOUR WIFE)?

ASSUME THAT THE JOB IS FOR PAY OUTSIDE THE HOME AND THAT THE CHILDREN ARE UNDER 10 YEARS OF AGE. REMEMBER TO MAKE YOUR CHOICES KNOWING THAT THE JOB IS FOR PAY OUTSIDE THE HOME AND THAT THE CHILDREN ARE UNDER 10 YEARS OF AGE.

> Interviewer: Show respondent the peach(I-L Scale) card. Check response in appropriate box on first line below. If either choice A or D is given, proceed to Q. 42. If B or C is given, proceed with the verbal questioning following arrows as indicated below.



CARD 1:

No children No job	1 child 1/2 time job	2 children 3/4 time job	3 children full time job
A ☐	B ☐	C ☐	D ☐
I-L 1 (Go to Q.42)			I-L 7 (Go to Q.42)

> Interviewer: If B or C, ask: WHICH OF THE FOLLOWING WOULD BE YOUR NEXT CHOICE? Read aloud the two choices. Check appropriate box below.

CARD 2: No children / No job — or — 2 children / 3/4 time job

or

CARD 3: 1 child / 1/2 time job — or — 3 children / full time job

No children No job	2 children 3/4 time job	1 child 1/2 time job	3 children full time job
A ☐	C ☐	B ☐	D ☐
I-L 2 (Go to Q.42)			I-L 6 (Go to Q.42)

> Interviewer: If either of these two, ask: AND WHICH OF THESE DO YOU LIKE NEXT BEST? Read aloud the two choices. Check box.

CARD 4		CARD 4	
No children no job	3 children full time job	No children no job	3 children full time job
A ☐	D ☐	A ☐	D ☐
I-L 3	I-L 4	I-L 4	I-L 5

---

*For males

257

42. Occupational Values

THESE CARDS DESCRIBE VALUES OR SATISFACTIONS THAT PEOPLE MIGHT CONSIDER IMPORTANT IN CHOOSING AN OCCUPATION. READ THROUGH THEM AND THINK ABOUT WHICH ONES ARE IMPORTANT TO YOU. TELL ME IF YOU FIND ANYTHING YOU DON'T UNDERSTAND. Place cards in horizontal order, with "A" on S's left,

LOOK AT VALUE H WITH ME. WHAT IS YOUR MAIN FIELD OF INTEREST? (Read over fields on card, circle student response:

Science Art Verbal Mechanics Personal Contact

Administration Other ____. ______
217

WHEN YOU RANK THIS VALUE, THINK ABOUT "HOW IMPORTANT IS IT FOR ME TO WORK IN THIS FIELD, RATHER THAN IN SOME OTHER FIELD?"

I'D LIKE YOU NOW TO TRY TO ARRANGE THESE IN ORDER OF IMPORTANCE TO YOU. IT MAY BE EASIEST TO FIRST MAKE THREE GROUPS - THOSE VALUES WHICH ARE MOST IMPORTANT TO YOU, THOSE THAT ARE LEAST IMPORTANT AND THOSE WHICH FALL IN BETWEEN.

(when that is finished) NOW PLEASE ARRANGE THE VALUES WITHIN EACH GROUP. PLACE THE MOST IMPORTANT VALUE AT THE TOP, AND FINISH WITH THE LEAST IMPORTANT VALUE AT THE BOTTOM.

Record the letters:

1______________________
(Most important)

2______________________

3______________________

4______________________

5______________________

6______________________

7______________________

8______________________

9______________________

10_____________________

A	______ 218	__
B	______ 220	__
C	______ 222	__
D	______ 224	__
E	______ 226	__
F	______ 228	__
G	______ 230	__
H	______ 232	__
I	______ 234	__
J	______ 236	__

43. Occupational Values

OKAY, NOW HOW IMPORTANT IS EACH OF THESE VALUES TO YOU? HERE IS A SCALE SHOWING NUMBERS FROM ZERO TO EIGHT.

0	1	2	3	4	5	6	7	8
Not important at all		Slightly important		moderately important		Strongly important		greatly important

HERE IS THE CARD ABOUT HIGH INCOME. DECIDE HOW IMPORTANT THIS IS TO YOU. CHOOSE THE NUMBER FROM THE SCALE THAT BEST DESCRIBES THE WAY YOU FEEL. DO YOU HAVE ANY QUESTIONS? DO THE SAME FOR ALL TEN VALUES.

______ HIGH INCOME 238

______ PRESTIGE 239

______ INDEPENDENCE 240

______ HELPING OTHERS 241

______ SECURITY 242

______ VARIETY 243

______ LEADERSHIP 244

______ FIELD OF INTEREST 245

______ LEISURE 246

______ EARLY ENTRY 247

44. Marriage Values

WHEN YOU ARE MARRIED (AND HAVE A PERMANENT RELATIONSHIP) YOU CAN BE WITH SOMEONE YOU LOVE.

THESE CARDS DESCRIBE OTHER VALUES OR SATISFACTIONS THAT PEOPLE MIGHT CONSIDER IMPORTANT IN DECIDING TO GET MARRIED. READ THROUGH THEM AND THINK ABOUT WHICH ONES ARE IMPORTANT TO YOU. TELL ME IF YOU FIND ANYTHING YOU DON'T UNDERSTAND.

I'D LIKE YOU NOW TO TRY TO ARRANGE THESE IN ORDER. IT MAY BE EASIEST TO FIRST MAKE THREE GROUPS -- THOSE VALUES WHICH ARE MOST IMPORTANT TO YOU, THOSE THAT ARE LEAST IMPORTANT, AND THOSE WHICH FALL IN BETWEEN.

(when that is finished) NOW PLEASE ARRANGE THE VALUES WITHIN EACH GROUP. PLACE THE MOST IMPORTANT VALUE AT THE TOP, AND FINISH WITH THE LEAST IMPORTANT VALUE AT THE BOTTOM.

Record the letters:

1_____________________
(Most important)
2_____________________
3_____________________
4_____________________
5_____________________
6_____________________
7_____________________
8_____________________
9_____________________
10_____________________
11_____________________
(Least important)

A _____ __ 248
B _____ __ 250
C _____ __ 252
D _____ __ 254
E _____ __ 256
F _____ __ 258
G _____ __ 260
H _____ __ 262
I _____ __ 264
J _____ __ 266
K _____ __ 268

IS THERE ANYTHING THAT WOULD INFLUENCE YOUR DECISION TO GET MARRIED THAT YOU DID NOT FIND ON THE CARDS?

277 V
278 C
279 D
280 2

301

45. Marriage Values

OKAY, NOW HOW IMPORTANT IS EACH OF THESE VALUES TO YOU? HERE IS A SCALE SHOWING NUMBERS FROM ZERO TO EIGHT.

0	1	2	3	4	5	6	7	8
Not important at all		slightly important		moderately important		strongly important		greatly important

HERE IS THE CARD ABOUT SECURITY. DECIDE HOW IMPORTANT THIS IS TO YOU. CHOOSE THE NUMBER FROM THE SCALE THAT BEST DESCRIBES THE WAY YOU FEEL DO YOU HAVE ANY QUESTIONS? DO THE SAME FOR ALL ELEVEN VALUES.

__________ FINANCIAL SECURITY

306

__________ EMOTIONAL SUPPORT

307

__________ A HELP MATE

308

__________ A CLOSE PHYSICAL RELATIONSHIP

309

__________ PRESTIGE

310

__________ A NORMAL LIFE

311

__________ A PERMANENT COMPANION

312

__________ CHILDREN

313

__________ YOUR OWN HOME

314

__________ SOMEONE TO RELY ON

315

__________ A FEELING OF LEADERSHIP

316

46. Parenthood Values

THESE CARDS DESCRIBE VALUES OR SATISFACTIONS THAT PEOPLE MIGHT CONSIDER IMPORTANT IN DECIDING TO HAVE CHILDREN. READ THROUGH THEM AND THINK ABOUT WHICH ONES ARE IMPORTANT TO YOU. TELL ME IF YOU FIND ANYTHING YOU DON'T UNDERSTAND.

I'D LIKE YOU NOW TO TRY TO ARRANGE THESE IN ORDER. IT MAY BE EASIEST TO FIRST MAKE THREE GROUPS--THOSE VALUES WHICH ARE MOST IMPORTANT TO YOU, THOSE THAT ARE LEAST IMPORTANT, AND THOSE WHICH FALL IN BETWEEN.

(when that is finished) NOW PLEASE ARRANGE THE VALUES WITHIN EACH GROUP. PLACE THE MOST IMPORTANT VALUE AT THE TOP, AND FINISH WITH THE LEAST IMPORTANT VALUE AT THE BOTTOM.

Record the letters:

1____________________
(most important)

2____________________

3____________________

4____________________

5____________________

6____________________

7____________________

8____________________

9____________________

10___________________

11___________________

12___________________
(Least important)

A ____ __
317

B ____ __
319

C ____ __
321

D ____ __
323

E ____ __
325

F ____ __
327

G ____ __
329

H ____ __
331

I ____ __
333

J ____ __
335

K ____ __
337

L ____ __
339

IS THERE ANYTHING THAT WOULD INFLUENCE YOUR DECISION TO BE A PARENT THAT YOU DID NOT FIND ON THE CARDS?

47. Parenthood Values

OKAY, NOW HOW IMPORTANT IS EACH OF THESE VALUES TO YOU. HERE IS A SCALE SHOWING NUMBERS FROM ZERO TO EIGHT.

0	1	2	3	4	5	6	7	8
Not important at all		Slightly important		moderately important		strongly important		greatly important

HERE IS THE CARD ABOUT ACCOMPLISHMENT. DECIDE HOW IMPORTANT THIS IS TO YOU. CHOOSE THE NUMBER FROM THE SCALE THAT BEST DESCRIBES THE WAY YOU FEEL. DO YOU HAVE ANY QUESTIONS? DO THE SAME FOR ALL TWELVE VALUES.

__________________ACCOMPLISHMENT __________ 341

__________________A SENSE OF PRIDE __________ 342

__________________VARIETY __________ 343

__________________FRIENDSHIP __________ 344

__________________RESPECT OF OTHERS __________ 345

__________________A STABLE MARRIAGE __________ 346

__________________A CHANCE TO EXPRESS LOVE __________ 347

__________________CONFIDENCE AS A MAN OR WOMAN __________ 348

__________________JOY __________ 349

__________________FUTURE SECURITY __________ 350

__________________A TIE TO THE FUTURE __________ 351

__________________A SENSE OF IMPORTANCE __________ 352

48. JOB-CHILD SCALE

A LITTLE EARLIER WE TALKED ABOUT SOME JOB AND CHILDREN POSSIBILITIES-- WHICH YOU LIKED BEST, NEXT BEST, AND SO ON. NOW LET ME ASK YOU ABOUT SOME COMBINATIONS THAT ARE A LITTLE DIFFERENT.

IF YOU COULD HAVE JUST WHAT YOU WANTED, WHICH OF THESE WOULD YOU MOST LIKE (FOR YOUR WIFE)* TO HAVE? ASSUME THAT THE JOB IS FOR PAY AND THAT THE CHILDREN ARE UNDER TEN YEARS OF AGE. REMEMBER(repeat last sentence)

> Interviewer: Show respondent blue card 1 of the J-C Scale. Check response in appropriate box below. If either B or C is given, proceed with the verbal questioning following arrows as indicated below.

CARD 1:

No children full time job	1 child 3/4 time job	2 children 1/2 time job	3 children no job
A ☐	B ☐	C ☐	D ☐
J-C 1 (Go to Q.49)			J-C 7 (Go to Q.49)

> Interviewer: If B or C, ask: WHICH OF THE FOLLOWING WOULD BE YOUR NEXT CHOICE? Read aloud the 2 choices. Check appropriate box below.

CARD 2

No children full time job — A ☐ — J-C 2 (Go to Q.49)

or

2 children 1/2 time job — C ☐

or

CARD 3

1 child 3/4 time job — B ☐

or

3 children no job — D ☐ — J-C 6 (Go to Q.49)

> Interviewer: If either of these two, ask: AND WHICH OF THESE DO YOU LIKE NEXT BEST? Read aloud the 2 choices. Check box.

CARD 4

No children full time job — A ☐ — J-C 3

or

3 children no job — D ☐ — J-C 4

CARD 4

No children full time job — A ☐ — J-C 4

or

3 children no job — D ☐ — J-C 5

* For males

49. CIRCLE: Self

YOU HAVE JUST TOLD ME YOUR VALUES FOR WORK, MARRIAGE, AND CHILDREN. HOW IMPORTANT ARE THESE TO YOU WHEN THEY ARE COMPARED WITH EACH OTHER?

ON THE NEXT PAGE ARE SOME CIRCLES. PRETEND THAT ONE REPRESENTS YOUR LIFE. YOUR LIFE HAS MANY PARTS. I WOULD LIKE YOU TO DIVIDE A CIRCLE LIKE PIECES OF PIE--TO SHOW HOW IMPORTANT MARRIAGE, WORK, CHILDREN AND OTHER THINGS WILL BE IN YOUR LIFE. THE BIGGER THE PIECE OF PIE THE MORE IMPORTANT IT IS TO YOU--THE SMALLER THE LESS IMPORTANT.

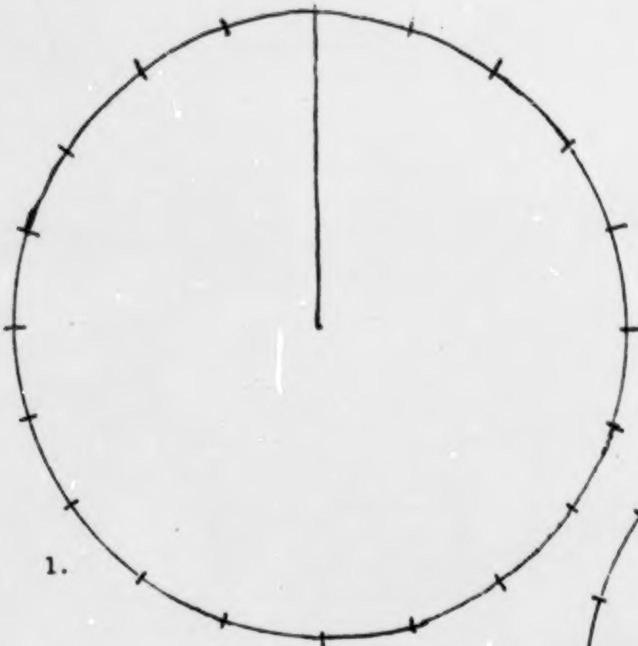
NOW DIVIDE THE CIRCLE SO THAT THERE ARE FOUR PARTS: MARRIAGE, WORK, CHILDREN AND OTHER. THERE ARE SEVERAL CIRCLES SO THAT YOU CAN TRY IT SEVERAL TIMES UNTIL YOU DIVIDE THE CIRCLE IN THE WAY THAT IS CLOSEST TO HOW YOU FEEL. ANY QUESTIONS? PLEASE LABEL EACH PART.

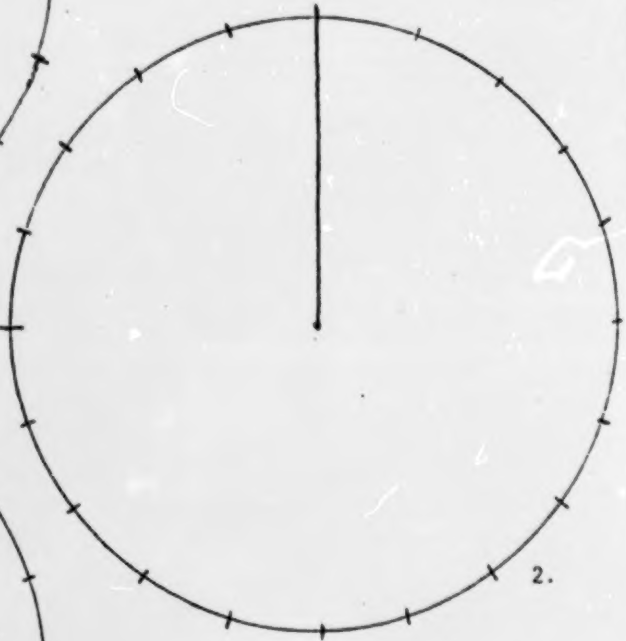
(After student divides each circle, follow with a verbal description i.e., This tells me that marriage is most important to you, much more important than work. Children are about as important as work and "other" is least important of all. Is that a good description? Do you want to change anything?)

WHAT ACTIVITIES DOES THE "OTHER" CHUNK REPRESENT (point to it)?

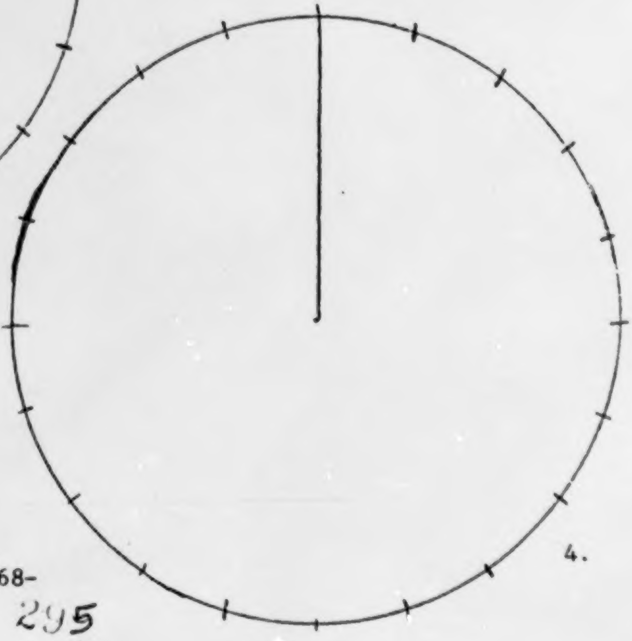
Key

M = Marriage ______ ______ 354
C = Children ______ ______ 356
W = Work ______ ______ 358
O = Other ______ ______ 360


1.


2.

3.


4.

Final decision:

Circle #______

377 V
378 C
379 D
380 3

201 — — — — —

50. **IMAGINE** YOU ARE MARRIED -- ON THIS PAGE IS A LIST OF ACTIVITIES FOR FAMILIES WITH **CHILDREN.** RATE EACH ACTIVITY ACCORDING TO WHO YOU FEEL SHOULD HAVE THE RESPONSIBILITY **FOR IT.** FOR EACH ACTIVITY PLACE AN "X" IN ONE OF THE FIVE COLUMNS.

	Only a Woman's responsibility 1	Mainly a Woman's responsibility 2	Could be either person's responsibility 3	Mainly a Man's responsibility 4	Only a Man's responsibility 5	
Cleaning the house (dust, vacuum)						406
Mending clothes						407
Managing family money						408
Repairing household appliances						409
Mowing the lawn						410
Planning color scheme for home						411
Reading to children						412
Taking out garbage						413
Washing the family car						414
Washing clothes						415
Caring for baby						416
Taking children to doctor						417
Earning salary that supports family						418
Doing family's food shopping						419
Deciding when car needs tune-up						420
Teaching children sports						421
Cooking meals						422
Fixing a broken lamp						423
Deciding to move to another city						424
Helping children with homework						425
Staying home from work if a child is sick						426
Deciding to buy a large item: color TV, washing machine, etc.						427

NOW I WOULD LIKE TO ASK YOU ABOUT SOME EDUCATION, WORK, AND FAMILY DECISIONS THAT ARE RELATED TO YOUR CAREER DECISIONS.

WORK DECISIONS-SELF

52. ON THIS PAGE ARE SOME CHOICES YOU HAVE ABOUT WORK AFTER YOU COMPLETE SCHOOL. TELL ME WHAT YOU EXPECT TO DO--THE DECISIONS YOU WILL MAKE--FOR WORK AFTER SCHOOL. (Read all choices before each decision.)

1. WILL YOU WORK? ___ Paid work ___ 428

___ Non-paid work

If non-paid work, WHAT KIND:

___ Homemaker

___ Volunteer

___ Other ____________________

2. WHAT WILL YOUR WORKING HOURS BE? I will probably work: ___ 429

___ Fulltime

___ Mostly fulltime

___ Mostly parttime (Less than 20 hours per week)

___ Sometimes fulltime, sometimes parttime

___ Other ________________________

3. WHAT WILL YOUR WORK PATTERN BE? I will probably work: ___ 430

___ Continuously

___ Mostly continuously (short interruptions)

___ Off and on, stopping work for periods of 1 year or more

___ Briefly, less than 4 years altogether

___ Other ________________________

4. WILL YOU CHANGE YOUR WORK OFTEN? I will probably: ___ 431

___ Try a variety of different jobs, not all in one field

___ Start in one field, change to a new field at some time

___ Start in one field, remain in this field through working life

___ Other ________________________________

5. HOW WILL YOU COMBINE WORK AND FAMILY? I will probably: ___ 432
(Check more than one if appropriate)

___ Work continuously, regardless of marriage/children

___ Work before marriage

___ Work before children

___ Work when children are 1-3 years old

___ Work when children are 3-5 years old
(In day care or nursery school)

___ Work when children are 5-12 years old ___ 433
(In elementary school)

___ Work when children are over 12 years old

___ Other ____________________________________
(ask for description)

WORK DECISIONS-SPOUSE

53. FOR THE SAME SET OF DECISIONS YOU JUST TOLD ME ABOUT YOURSELF, NOW TELL ME WHAT YOU EXPECT YOUR SPOUSE TO DO--THE DECISIONS YOUR SPOUSE WILL MAKE FOR WORK AND SCHOOL. (Read all choices aloud before checking each decision.)

1. WILL HE/SHE HAVE A: ___ 434

___ High School education?

___ College education?

___ Non-college further education?

2. WILL HE/SHE WORK? He/she will probably have: ___ 435

___ Paid work or ___ Non-paid work

Yes Homemaker

No Volunteer

Other ______________________________

3. WHAT WILL THE WORKING HOURS BE? He/she will probably work: ___ 436

___ Fulltime

___ Mostly fulltime

___ Mostly parttime (Less than 20 hours per week)

___ Sometimes fulltime, sometimes parttime

___ Other ______________________________

4. WHAT WILL THE WORK PATTERN BE? He/she will probably work: ___ 437

___ Continuously

___ Mostly continuously (short interruptions)

___ Off and on, stopping work for periods of 1 year or more

___ Briefly, less than 4 years altogether

___ Other ______________________________

5. WILL THERE BE WORK CHANGES? He/she will probably: ___ 438

___ Try a variety of different jobs, not all in one field

___ Start in one field, change to a new field at some time

___ Start in one field, remain in this through working life

___ Other ____

6. HOW WILL WORK AND FAMILY BE COMBINED? My spouse will probably: ___ 439
(Check more than one if appropriate)

___ Work continuously, regardless of marriage/children

___ Work before marriage

___ Work before children

___ Work when children are 1 to 3 years old

___ Work when children are in day care/nursery school (ages 3-5)

___ Work when children are in elementary school ___ 440

___ Work when children are over 12 years old

___ Other (Describe) ________________________________

54. OF THESE CHOICES YOU HAVE FOR MARRIAGE AND CHILDREN, TELL ME WHAT YOU EXPECT TO DO--THE DECISIONS YOU WILL MAKE.

1. WILL YOU MARRY? Yes or No ___ 441

2. WILL YOU HAVE CHILDREN? Yes or No ___ 442

3. If yes, WHO WILL CARE FOR YOUR CHILDREN? (Read all choices before checking response.) Until youngest child is how old? ___ 443

___ at home, by wife ______

___ at home, by husband and wife ______ ___ 444, ___ 445

___ at home, by relative ______

___ at home, by housekeeper ______

___ at relative's home ______ ___ 446

___ at someone else's home ______ ___ 447 ___ 448

___ at a day care center, nursery school ______

___ Other ______________________________

477 V
478 C
479 D
480 4

ON THE NEXT PAGE ARE SOME QUESTIONS TO SHOW WHEN (AT WHAT AGES) YOU EXPECT TO BE IN SCHOOL, WORK, BE MARRIED, AND HAVE CHILDREN.

WHAT DO YOU EXPECT TO DO AFTER HIGH SCHOOL?*

(Circle the appropriate age or all ages for each question)

WHEN WILL YOU BE IN SCHOOL?

AGE: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

WHEN WILL YOU BE MARRIED?

AGE: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

WHEN WILL YOU HAVE CHILDREN?

CHILDREN: Circle age to have child 1, child 2, etc.

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

WHEN WILL YOU BE WORKING FULLTIME?

AGE: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

WHEN WILL YOU BE WORKING PARTTIME?

AGE: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

*Interviewer: Ask age at high school graduation and draw a vertical line through the age the student will be at high school graduation.

301

302

528 532 534 540 544 548 551

552

___ 501 ___ ___ ___ ___

THERE ARE JUST A FEW QUESTIONS LEFT.

56. THE THREE MAIN RESPONSIBILITIES, IN A FAMILY ARE EARNING MONEY, KEEPING HOUSE, AND CARING FOR CHILDREN. WHAT DO YOU THINK IS THE BEST ARRANGEMENT FOR DIVIDING UP THESE RESPONSIBILITIES?

IN TERMS OF EARNING MONEY, FOR EXAMPLE WHAT PERCENT OF THE RESPONSIBILITY SHOULD THE HUSBAND ACCEPT? AND THE WIFE?

	Earning Money	Keeping house	Caring for children
HUSBAND	___	___	___
WIFE	___	___	___
ANOTHER PERSON (WHO?)	___	___	___
	100%	100%	100%

___ 506 ___

___ 508 ___

___ 510 ___

___ 512 ___

___ 514 ___

___ 516 ___

___ 518 ___

___ 520 ___

___ 522 ___

57. ARE THERE ANY CIRCUMSTANCES UNDER WHICH A HUSBAND SHOULD NOT WORK? ___ 524

58. ARE THERE ANY CIRCUMSTANCES UNDER WHICH A WIFE SHOULD NOT WORK? ___ 525

59. HOW DO YOU THINK A WIFE FEELS IF HER HUSBAND EARNS MORE THAN SHE DOES? WHY? ___ 526

60. HOW DO YOU THINK A HUSBAND FEELS IF HIS WIFE EARNS MORE MONEY THAN HE DOES? WHY? ___ 527

THANK YOU FOR YOUR TIME AND HELP. PLEASE SIGN THE FORM THAT SHOWS YOU HAVE RECEIVED PAYMENT FOR PARTICIPATION IN THIS STUDY.

Record time ___

___ Date

___ Interviewer's Signature

APPENDIX 3

Occupational Scales

APPENDIX 3-1

A Revised Occupational Scale for Rating Socioeconomic Status[1]

	Level						
Category	1	2	3	4	5	6	7
I Professional	doctorate judges doctor lawyer	bachelor's or master degree Nurse Teacher Editor Pharmacist	BA or less Librarian Minister Reporter Lab Tech.	—	—	—	—
II Semi-profess.	—	Undertaker Airline Pilot	Clothes designer Commercial artist Photograp. Computer Prog.	Lab tech. Draftsman Photograp. Sound Editor Chemistry tech.	—	—	—
III Business (Business Value)	$750,000+ (size of business)	$250,000 - $750,000 Hotel Mgr.	$50,000 - $250,000 Office Mgr.	$25,000 - $50,000	up to $25,000	—	—
IV Clerical	Top notch sales	Life Ins. Salesman	Auto sales Admin. Sec Auditors Accountant	Bookkeeper Steno Teller Cashier Traveling Salesman Ass't Buyer	Ass't Bookkeeper Keypunch Operator Typist Tele. Oper. Store Clerk Salesperson Secretary (H.S.)	Shipping Clerk Mail clerk A&P check. Office boy	—
V Manual	—	—	—	highly skilled Printer Radio/TV repair Plumber Electrician Watchmaker Machinist	Journeyman Carpenter Construc. Factory(w. respon.) Tele. foreman	Semi-skilled to Low factory Helpers w. Construc. Miners	Heavy labor (not stable)
VI Protective and Service	Police Commissioner	High police official	Detective Supt. of Bldgs. Fire Dept. Inspect.	Paraprofess. Family Plan Counselor (H.S.) Policeman Fireman Chef Custodian Tailor Army recruit Sanitation Supervisor Hotel Mgr.	Bus driver Corporal Barber Baker Cook Prac.Nurse Butcher Waiter at fine rest. Transit worker	Soldier Night policeman Bartender Truck Dr. Taxi Dr. Shoe repair Sanitation Chauffeur Ambulance Driver Meter read.	Night watchm Porter Garbage coll Messenger boy Dish Washer

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[1] Hamburger, M. Realism and consistency in early adolescent aspirations and expectations. Unpublished doctoral dissertation, Columbia University, 1958.

APPENDIX 3-2. Roe Two-Way Classification of Occupations[1]

Level	Group							
	I. Service	II. Business Contact	III. Organization	IV. Technology	V. Outdoor	VI. Science	VII. General Cultural	VIII. Arts and Entertainment
1	Personal therapists Social work supervisors Counselors	Promoters	United States President & Cabinet officers Industrial tycoons International bankers	Inventive geniuses Consulting or chief engineer Ship's commanders	Consulting specialist	MD Research scientists University, college faculties Medical specialists Museum curators	Supreme Court Justices University, college faculties Prophets Scholars	Creative artists Performers, great Teachers, university equivalent Museum curators Writer
2	Social workers Occupational therapists Probation, truant officers (with training)	Promoters Public relations counselors	Computer Prog. Certified public accountants Business and government executives Union officials Brokers, average	Applied scientists Factory managers Ship's officers Engineers	Applied scientists Landowners & operators large Landscape architects	Scientists, semi-independent Nurses Pharmacists Veterinarian	Editors Teachers, high school and elementary Lawyer Minister	Athletes Art critics Designers Music arrangers Actor Musician Artist
3	YMCA officials Detectives police sergeants Welfare workers City inspectors	Salesmen: auto, bond, insurance, etc. Dealers, retail and wholesale Confidence men	Accountants, average Employment managers Owners, catering dry-cleaning, etc.	Aviators Contractors Foremen (DOTI) Radio operators	County agents Farm owners Fish, game wardens	Technicians, medical, X-ray, museum Weather observers Chiropractor	Justices of the Peace Radio announcers Reporters Librarians Interpreter	Ad writers Designers Interior decorators Showmen Fashion Sports Merchandising Writer
4	Barbers Chefs Practical nurses Policemen Beautician	Auctioneers Buyers (DOTI) House canvassers Interviewers, poll	Cashiers Clerks, credit, express, etc. Foremen, warehouse Salesclerks Secretary Key Punch	Blacksmiths Electricians Foremen (DOTII) Mechanics, average	Laboratory testers, dairy products, etc. Miners Oil well drillers	Techical assistants	Law	Advertising artists Decorators, window etc. Photographers Racing car drivers
5	Taxi drivers General houseworkers Waiters City firemen	Peddlers	Clerks, file, stock, etc. Notaries Runners Typists	Bulldozer operators Deliverymen Smelter workers Truck drivers	Gardeners Farm tenants Teamsters, cowpuncher Miner's helpers	Veterinary hospital attendants	Teacher aide	Illustrators, greeting cards Showcard writers Stagehands
6	Chambermaids Hospital attendants Elevator operators Watchmen		Messenger boys	Helpers Laborers Wrappers Yardmen	Dairy hands Farm laborers Lumberjacks	Nontechnical helpers in scientific organization		

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[1] Roe, A. The psychology of occupations. New York: Wiley, 1956.

APPENDIX 4

Student Permission and Receipt Forms

School Name and Address

Principal's Name

CAREER DECISION-MAKING STUDY

February 1978

Dear

We are interested in the ideas high school students have about their future plans for jobs, school, marriage and children. We would like to talk with you about yourself, your family, friends, school life and ideas you have about your future. This information will help us in understanding how students plan and make choices.

Would you like to talk with us about your ideas and answer some questions? We would like to meet with you individually at your school for about an hour. We will give you $3.00 for your time and help. The person talking with you will take notes and may tape record what you say.

Everything you talk to us about will be kept private and your name will not be on any records. You will not have to answer any questions that you don't want to. Also, if you wish to stop the interview at any time, you may do so but we can pay you only when the interview is completed.

If you want to be part of this study, you and your parent or guardian must sign this consent form. Please return the form tomorrow after official class to (teacher or counselor name and room number).

Sincerely yours,

Carol Kehr Tittle Deanna Chitayat

Carol Kehr Tittle Deanna Chitayat
Project Directors

CENTER FOR ADVANCED STUDY IN EDUCATION
GRADUATE SCHOOL, CITY UNIVERSITY OF NEW YORK
33 WEST 42nd STREET, NEW YORK, N.Y.

- -

I would like to participate in the Career-Decision-Making Study

____
Student's Signature

Official Class ________________

____
Home Address (street)

____
City State Zip

I give permission for ________________
(print student's name)
to participate in the Career Decision-Making Study.

____
Signature of parent or guardian Date

School Name and Address

Principal's Name

ESTUDIO DE HACER DECISIONES VOCACIONALES

febrero, 1978

Estimado/a

Tenemos interés en las ideas que los estudiantes de la escuela superior tienen sobre el futuro en cuanto al trabajo, el matrimonio, la escuela y los hijos. Queremos hablar contigo sobre tu familia, tus amigos, la vida escolar y las ideas que tienes sobre tu futuro. Esta información nos ayudará entender como alumnos planean y hacen decisiones.

¿Tienes interés en hablar con nosotros sobre tus ideas y contestar unas preguntas? Queremos reunir contigo individualmente en tu escuela. Demoramos aproximadamente una hora. Despúes te daremos tres dólares por el tiempo y asistencia. La persona con quien hablarás, tomará notas y puede recordar lo que digas.

Todo lo que nos digas se tendrá privado y tu nombre no estará en los papales. No tendrás que contestar las preguntas que prefieres omitir. También, si quieres terminar la entrevista a cualquier punto, lo puedes hacer pero podemos pagarte solamente cuando se complete la entrevista.

Si tú quieres ser parte de este estudio, tú y tu padre (o guardián) deben firmar este permiso. Entregue el papel a la

Muy atentamente,

Carol Kehr Tittle

Carol Kehr Tittle
Deanna Chitayat
Directores del Proyecto

CENTRO DE ESTUDIO AVANZADO DE EDUCACIÓN
GRADUATE CENTER, CITY UNIVERSITY OF NEW YORK
33 WEST 42nd STREET, NEW YORK, N.Y.

- -

Yo quiero participar en el Estudio de Hacer Decisiones Vocacionales

____
Firma del estudiante

Clase oficial ______________

____
Dirección de la casa

____
Cuidad Estado

Yo doy permiso a

____
(nombre del estudiante)

que participe en el Estudio de Hacer Decisione Vocacionales

____
Firma del padre (o guardián)

____
Fecha

The Graduate School and University Center
of the City University of New York

Center for Advanced Study in Education
Institute for Research and Development in Occupational Education
33 West 42 Street, New York, N.Y. 10036
(212) 221-3895, -3896

I, ______________________________, completed the
(print name)
Career Decision Making interview. I received $3.00.

______________________ (Student's Signature)

______________________ (Student's School)

______________________ (Date)

Mailing Address ______________________ (Street and Number)

______________________ (City, State, Zip)

______________________ (Interviewer Signature)

APPENDIX 5

Factor Analyses of the Values

APPENDIX 5-1

Factors for the Total Sample

Value Area	Value	Loading	Value Area	Value	Loading	Value Area	Value	Loading
	(Factor 1)			(Factor 2)			(Factor 3)	
M	A Normal Life	.75	O	Prestige	-.79	O	High Income	-.71
P	Respect of Others	.64	O	Variety	.44	O	Helping Others	.71
P	Variety	-.30	M	Prestige	-.56	O	Security	-.33
P	A Stable Marriage	.33						
M	A Feeling of Leadership	-.27	O	Security	.24	O	Variety	.29
M	Emotional Support	-.24	M	A Helpmate	.24	O	Leisure	-.24
P	A Tie to the Future	-.20	M	Someone to Rely On	.21	M	Close Physical Relationship	-.27
						M	Children	.29
						M	Someone to Rely On	-.26
						P	Variety	.22
						P	A Stable Marriage	-.29
	(Factor 4)			(Factor 5)			(Factor 6)	
P	A Chance to Express Love	.30	O	Security	.35	M	Emotional Support	.45
P	Confidence as a Man or Woman	.36	O	Leadership	-.80	M	Prestige	-.40
P	Future Security	-.63	O	Early Entry	.56	M	Children	.52
P	Tie to the Future	-.77	M	Feeling of Leadership	-.55	M	Feeling of Leadership	-.39
P	Friendship	.25				P	Chance to Express Love	.42
P	Respect of Others	.25				P	Joy	.66
						P	A Stable Marriage	-.21

APPENDIX 5-1 (continued)

Value Area	Value	Loading	Value Area	Value	Loading	Value Area	Value	Loading
	(Factor 7)			(Factor 8)			(Factor 9)	
P	Accomplishment	.76	O	Leisure	-.52	M	A Helpmate	-.69
P	Sense of Pride	.75	M	Close Physical Relationship	-.52	M	A Permanent Companion	.68
			P	Variety	-.36			
P	Friendship	-.25	P	Sense of Importance	.67			
P	A Stable Marriage	-.25				M	Emotional Support	-.20
P	Chance to Express Love	-.28				M	Children	.20
P	Confidence as a Man or Woman	-.22	O	Security	.28	M	Someone to Rely On	.20
						P	Respect of Others	-.23
P	Future Security	-.21				P	Stable Marriage	.24
	(Factor 10)			(Factor 11)			(Factor 12)	
M	Financial Security	-.87	M	Emotional Support	-.39	O	Independence	.87
			M	Prestige	-.33	O	Leisure	-.31
			M	Children	.36			
O	High Income	-.28	M	Your Own Home	.81			
O	Variety	.25				O	Security	-.21
M	A Helpmate	.29				O	Variety	.25
M	Permanent Companion	.26	O	Variety	-.28	M	Close Physical Relationship	.24
M	Children	.21	O	Early Entry	.27			
M	Someone to Rely On	.25	M	A Helpmate	-.24	M	Prestige	.21
P	Future Security	-.24	M	Permanent Companion	-.22			

APPENDIX 5-1 (continued)

Value Area	Value	Loading	Value Area	Value	Loading
	(Factor 13)			(Factor 14)	
P	Variety	-.54	O	Security	-.39
P	Friendship	-.65	O	Field of Interest	.74
P	Stable Marriage	.35	M	Someone to Rely On	.40
P	Confidence as a Man or Woman	.67	P	Chance to Express Love	.30
O	Variety	-.22			
O	Early Entry	.20			
M	Children	.26			
M	Someone to Rely On	-.29			

APPENDIX 5-2

Factors for the Female Sample

Value Area	Value	Loading	Value Area	Value	Loading	Value Area	Value	Loading
	(Factor 1)			(Factor 2)			(Factor 3)	
P	Friendship	-.68	M	Feeling of Leadership	-.86	O	High Income	-.74
P	Confidence as a Man or Woman	.67	M	A Normal Life	.46	O	Variety	.33
P	Variety	-.59	P	Joy	.34	O	Helping Others	.31
P	Stable Marriage	.33	O	Leadership	-.25	M	Financial Security	-.72
M	Children	.28	M	Permanent Companion	.28	M	Children	.38
M	Permanent Companion	-.20	M	Prestige	-.26	M	Permanent Companion	.35
P	Sense of Importance	.28	M	Children	.28	O	Field of Interest	.22
			P	Variety	-.20	P	Respect of Others	-.20
			P	Confidence as a Man or Woman	-.20	P	Sense of Importance	-.20
	(Factor 4)			(Factor 5)			(Factor 6)	
O	Prestige	.88	P	Accomplishment	-.74	P	Tie to the Future	.85
O	Variety	-.30	P	Sense of Pride	-.74	P	Respect of Others	-.50
M	Prestige	.55	P	Variety	-.34	M	A Normal Life	-.37
M	Your Own Home	-.27	P	Chance to Express Love	.41	P	Stable Marriage	-.23
			P	Stable Marriage	.31	P	Confidence as a Man or Woman	-.29
			P	Respect of Others	.26	P	Joy	.24
			P	Friendship	.22	P	Future Security	.27
			P	Future Security	.26			

APPENDIX 5-2 (continued)

Value Area	Value	Loading	Value Area	Value	Loading	Value Area	Value	Loading
	(Factor 7)			(Factor 8)			(Factor 9)	
O	Leadership	.77	M	Someone to Rely On	.75	M	Emotional Support	.73
O	Early Entry	-.72	M	Permanent Companion	.48	M	Your Own Home	-.57
P	Joy	.30	P	Respect of Others	-.36	P	A Stable Marriage	-.36
						P	Chance to Express Love	.47
O	High Income	.28	M	A Normal Life	.27			
O	Field of Interest	-.23	M	Prestige	-.26			
O	Variety	.20	M	Close Physical Relationship	-.23	P	Joy	.24
P	Sense of Importance	-.20				P	Future Security	-.24
			M	Financial Security	-.23	P	Respect of Others	-.24
			P	Sense of Importance	.27			
	(Factor 10)			(Factor 11)			(Factor 12)	
O	Variety	-.53	O	Field of Interest	-.48	O	Leisure	-.71
M	Helpmate	-.83	M	Close Physical Relationship	-.58	O	Helping Others	.38
M	Permanent Companion	.30				O	Field of Interest	.34
M	Children	.31	P	Future Security	.63	P	Sense of Importance	.54
			P	Joy	-.40			
M	Financial Security	.24				P	Variety	-.25
			O	Variety	.21	P	Stable Marriage	-.28
			M	Normal Life	.22			

APPENDIX 5-2 (continued)

Value Area	Value	Loading	Value Area	Value	Loading
	(Factor 13)			(Factor 14)	
O	Independence	-.74	O	Security	-.84
O	Helping Others	.45	P	A Stable Marriage	-.34
M	Prestige	-.45			
M	Children	.33			
O	Variety	-.27	O	Independence	.28
M	Your Own Home	.29	P	Chance to Express Love	.28
P	Chance to Express Love	.22	P	Future Security	.21

APPENDIX 5-3

Factors for the Male Sample

Value Area	Value	Loading	Value Area	Value	Loading	Value Area	Value	Loading
	(Factor 1)			(Factor 2)			(Factor 3)	
O	Security	.55	O	Leadership	-.70	M	Permanent Companion	.73
M	Financial Security	.78	M	Feeling of Leadership	-.63	M	Your Own Home	-.64
P	Future Security	.48	P	Sense of Importance	-.49	M	Normal Life	.54
P	Variety	-.35						
M	Permanent Companion	-.22	O	Early Entry	.28	M	Financial Security	-.20
M	Children	-.29	O	Prestige	-.20	P	A Stable Marriage	.22
			M	Normal Life	.25			
			P	Variety	.29			
			P	Respect of Others	.25			
	(Factor 4)			(Factor 5)			(Factor 6)	
O	High Income	.78	P	Accomplishment	.77	M	Someone to Rely On	.62
O	Helping Others	-.76	P	Sense of Pride	.75	P	Confidence as a Man or Woman	-.80
			P	A Stable Marriage	-.34	P	Variety	.38
						P	Friendship	.37
O	Variety	-.29	P	Friendship	-.27			
O	Security	.25	P	Joy	-.26			
M	Children	-.25						
P	A Stable Marriage	.26						
P	Future Security	-.23						

APPENDIX 5-3 (continued)

Value Area	Value	Loading
	(Factor 7)	
M	Emotional Support	.65
M	Children	.33
P	Joy	.60
P	A Stable Marriage	-.48
P	Respect of Others	-.30
P	Friendship	.29
O	Prestige	.20
O	Early Entry	-.20
M	Normal Life	-.27
P	Chance to Express Love	.22
	(Factor 10)	
O	Field of Interest	-.80
P	Chance to Express Love	-.32
P	Sense of Importance	.30
O	Leisure	.22
O	Security	.28
O	Independence	.22
M	Normal Life	.21
P	A Stable Marriage	-.20
P	Future Security	-.20

Value Area	Value	Loading
	(Factor 8)	
O	Independence	.70
O	Leisure	-.70
O	Variety	.21
O	High Income	-.21
P	Sense of Pride	.20
	(Factor 11)	
P	A Tie to the Future	.81
P	Future Security	.46
P	Chance to Express Love	-.43
P	A Stable Marriage	-.23
P	Respect of Others	-.24
P	Friendship	-.22

Value Area	Value	Loading
	(Factor 9)	
O	Variety	-.35
M	A Helpmate	-.84
M	Children	.41
O	Leadership	.27
M	Permanent Companion	.20
M	Your Own Home	.21
P	Sense of Importance	-.22
	(Factor 12)	
O	Prestige	-.60
M	Prestige	-.80
M	Children	.33
O	Security	.26
M	Emotional Support	-.25
M	Normal Life	.24
M	Your Own Home	.23
M	Someone to Rely On	.25
P	Respect of Others	.28
P	Chance to Express Love	.22
P	Joy	.24
P	Variety	-.20

APPENDIX 5-3 (continued)

Value Area	Value	Loading	Value Area	Value	Loading
	(Factor 13)			(Factor 14)	
M	A Close Physical Relationship	.72	O	Early Entry	.67
M	Your Own Home	-.31	O	Variety	-.66
P	Respect of Others	-.48	P	Variety	-.30
P	Chance to Express Love	.36	P	Sense of Importance	.31
O	Helping Others	-.29	M	Normal Life	.29
O	Leisure	.22			
M	Normal Life	-.21			
P	A Stable Marriage	.22			